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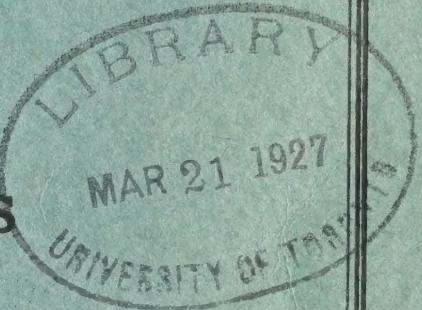
DEPARTMENT OF THE INTERIOR

Hon. Charles Stewart, Minister      W. W. Cory, C.M.G., Deputy Minister  
NORTH WEST TERRITORIES AND YUKON BRANCH  
O. S. Finnie, Director

# CANADA'S ARCTIC ISLANDS

CANADIAN EXPEDITIONS

1922-23-24-25-26



Ottawa  
F. A. ACLAND  
Printer to the King's Most Excellent Majesty  
1927



Canada-Northwest Territories and Yukon Affairs  
"Bureau of"

DEPARTMENT OF THE INTERIOR  
HON. CHARLES STEWART, *Minister*      W. W. CORY, C.M.G., *Deputy Minister*  
NORTH WEST TERRITORIES AND YUKON BRANCH  
O. S. FINNIE, *Director*

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## CANADA'S ARCTIC ISLANDS

### CANADIAN EXPEDITIONS

1922 AND 1923

J. D. CRAIG, B.Sc., D.L.S.  
OFFICER-IN-CHARGE

1924

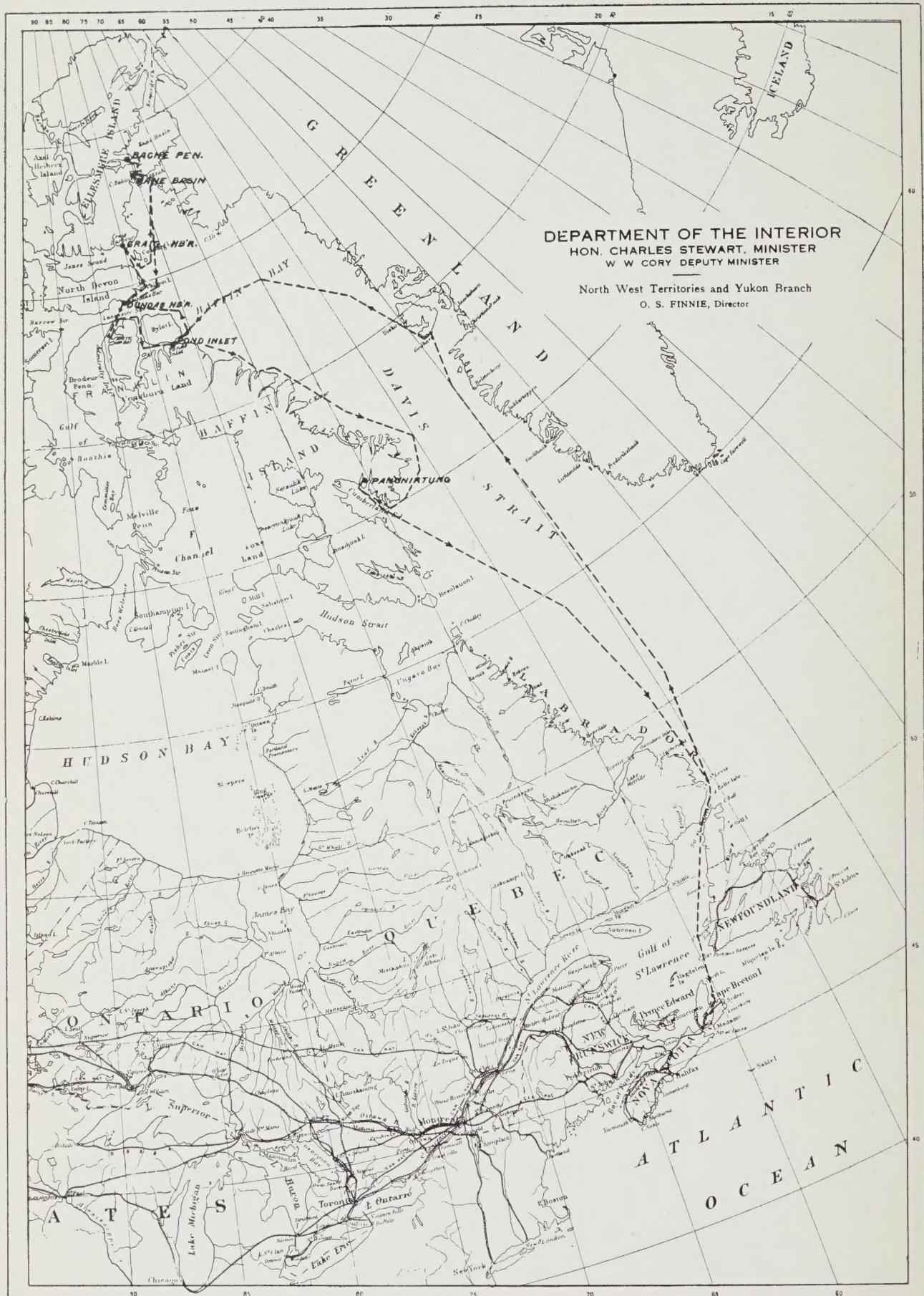
F. D. HENDERSON, D.L.S.  
OFFICER-IN-CHARGE

1925 AND 1926

GEO. P. MACKENZIE  
OFFICER-IN-CHARGE



Ottawa  
F. A. ACLAND  
Printer to the King's Most Excellent Majesty  
1927



MAP OF  
EASTERN PORTION OF CANADA

**EASTERN PORTION OF CANADA**  
AS FAR NORTH AS LATITUDE 84°  
SHOWING ROUTE OF S.S. BEOTHIC CARRYING CANADIAN GOVERNMENT EXPEDITION 1926 AND PLACES  
AT WHICH PERMANENT CANADIAN GOVERNMENT OFFICES HAVE BEEN ESTABLISHED

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## **FOREWORD**

Each year the Department of the Interior acting through the North West Territories and Yukon Branch, sends out an expedition to patrol the islands of the Canadian Arctic Archipelago; to reprovision the Government posts; to establish new posts when necessary; and to convey the officers of the various Departments who are detailed for duty in that area.

The present publication contains the reports of the officers in charge of these expeditions in the years 1922, 1923, 1924, 1925, and 1926.

## CANADIAN ARCTIC EXPEDITION, 1922

J. D. CRAIG, B.Sc., D.L.S., *Officer in Charge*

The C.G.S. *Arctic* which carried the 1922 Canadian Arctic Expedition left King's Wharf, Quebec, in the early morning of July 18.

The Officer in Charge of the expedition was Mr. J. D. Craig: on board were the police party consisting of Inspector Wilcox and nine men; the ship's five officers and crew of twenty men under Captain Bernier; the ship's doctor, the representative of the Air Board, the surveyor and assistant surveyor, the cinematographer, the Officer in Charge and his secretary—a grand total of forty-three souls.

The cargo comprised: 500 tons of coal for ship's fuel; 150 tons for use of police posts for two years; 225 tons of lumber for the police buildings; 75 tons of general cargo, consisting of police equipment and stores for two years, and supplies for the ship's crew for sixteen months in case she should be frozen in over the winter—a grand total of 950 tons. The lumber loaded on the ship was sufficient for only three posts, though it had been hoped to be able to establish four during the season. As it was, however, the ship had an enormous deckload and it was absolutely impossible to carry any more equipment or supplies. It may be noted here that the ship as loaded at Quebec was drawing twenty feet forward and twenty feet six inches aft.

A few minor accidents delayed the journey down the river somewhat, so that it was July 26 when Belle Isle strait was entered.

The next day the *Arctic* was out on the Atlantic with numerous icebergs in sight. The course was set well to the eastward in order to avoid the bergs and field-ice brought down along the Labrador coast by the southerly current, and to enter as soon as possible the northerly current off the coast of Greenland which would assist the ship on her way to the extent of a knot, or a knot and a half an hour which, with the *Arctic* heavily laden as she was and able to steam only about three and a half knots per hour, was well worth considering.

Fair, though light, breezes aided the ship and the coast of Greenland was first sighted on August 2. The coast is very rugged in appearance with many small hanging glaciers on the hillsides and larger glaciers in the valley bottoms, some of them coming down apparently to the water's edge, while in the background, overtopping all, could be seen the dim outline of the ice-cap which covers all of Greenland except a comparatively narrow strip along the coast.

As the ship gradually worked her way northward along the coast, there was less and less darkness at night until in the latitude of Disko island, about 69 degrees north latitude, it was quite light even at midnight. The loom of the ice of the "middle pack" too became increasingly more apparent as advance was made to the north.

This so called "middle pack" consists of ice carried down from the north by the winds and currents, and from year to year, and even from month to month, varies greatly in extent, position and character. The name "middle-ice" is probably given to it because it is usually found about midway between the coasts of Greenland and Baffin island, though on the return voyage in September, nothing was seen of it as it had been, apparently, all driven towards the coast of Baffin island by the prevailing northeasterly winds. Smith sound discharges a great deal of ice into Baffin bay, and a large quantity of ice also results from the breaking away of the ice in Melville bay. These packs form the "middle-ice" and a number of attempts were made to get through it once

a latitude had been reached where the Captain's experience led him to expect that a passage could be found. Many leads and lanes were followed up but all seemed to lead to an impasse until finally on August 11, he was forced to anchor to the ice in latitude  $74^{\circ} 30'$  almost abreast of the Devil's Thumb, a well known landmark on the coast of Greenland.

Three days before, on August 8, there had already been a stop of several hours duration as the ship was unable to force her way further through the ice. Advantage was taken of the opportunity to make some minor repairs and adjustments in the engine room and to refill the fresh water tanks from one of the many pools of fresh water on the ice. The water in these pools is of a peculiar greenish shade and from the "crow's nest" can be easily distinguished from the pools of salt water.

By 4 a.m. the ship's tanks were nearly full, about 10,000 gallons of fresh water having been added to the supply. The repairs and adjustments to the engines and auxiliaries were completed shortly afterwards and the ship was



BAFFIN LAND NATIVE FAMILY AND SKIN TENT.

on her course again by 6 a.m. Up to this time there had been only a few light flurries of snow, but a real snowstorm now set in, about four inches falling on August 11 and making all realize that they were gradually getting north far beyond the limits of the temperate zone.

By the morning of August 13 the ice south of Melville bay, where the ship was held up, had been opened up somewhat by the tide, assisted by the influence of a gentle northeasterly breeze, and by the movements of two or three large bergs which, driven by some deep current, were eating their way through the ice-field off to the south and west. Following up a slowly opening narrow lane leading southwest, and breaking through into some other small patches of open water by charging the heavy ice at full speed, the ship was slowly worked two or three miles to the southwest. In the meantime, the northerly breeze had freshened considerably, opening up the ice gradually, and by noon such progress had been made that open water was plainly visible throughout 90 degrees on the western horizon, and much to the satisfaction of all on board, the ship could resume her course to north Baffin land.

After a pleasant passage across Baffin bay, Bylot island was sighted early on the morning of August 15, but it was evening before the ship got abreast of Button point, the southeasterly extremity of the island. Pond inlet was found to be well filled with loose ice through which a whale boat could be seen working its way out towards the ship. Coming alongside it was found to be in charge of Mr. Wilfred Caron, Captain Bernier's nephew and agent here for Captain Munn of the Arctic Gold Exploration Company, and manned by an Eskimo crew.

They speedily came aboard and while the ship proceeded slowly up the inlet, a consultation in the chart room developed the fact that the *Arctic* was the first ship to arrive from outside, and that the ice was still solid from a point about seven miles farther up the inlet. This was a real disappointment as it was hoped to be able to proceed to the site selected for the post, some twenty miles from Button point, so that the ship might discharge part of her load. It was decided to despatch Caron, two of the Mounted Police, and two Eskimos over the ice to the Hudson's Bay Company's post to ask Sergeant Joy—who had come to Pond Inlet in September, 1921, to investigate the murder of the trader, Robert Janes, and who had been living at the Hudson's Bay Company's post,—to come to the ship for consultation with Inspector Wilcox.

Sergeant Joy reached the ship the following evening and after a short consultation returned to the post, the ice proving to be so solid that the ship was absolutely unable to force her way through it. It was thought advisable to proceed to Ellesmere island and establish the post there, after which it was hoped that the ice in Pond inlet would be so broken that it would be possible to reach the place selected for the post.

Sailing northward along the east coasts of Bylot and Devon islands, and crossing Lancaster and Jones sounds, Ellesmere island was sighted on the morning of the 20th August, with Coburg island abreast. Ice conditions here appeared very unfavourable but by taking advantage of various lanes of open water it was possible to make a way into the passage between Ellesmere island and Smith island, off cape King Edward VII.

The northwest coast of Coburg island was a beautiful sight. There were six glaciers, all of about the same width, of the same grade, and extending about the same distance inland, with the mountain spurs between them of about the same width. These six glaciers were flanked at either end by one narrower but much steeper glacier reaching down from the névés inland. Devon island also was very beautiful. The whole coast seemed to consist of alternate mountain spurs and glaciers, the latter reaching down apparently to sea level as no fore-shore was visible, due possibly to the fact that the *Arctic* was some 35 miles off shore. To the north could be seen Ellesmere island from abreast of Smith island to about cape Tennyson. In this distance there were three large glaciers, the most westerly being quite prominent. The glacier nearest the passage between Smith island and Ellesmere island was named Wilcox glacier. It is a narrow glacier which spreads out into a very regular fan shape before it discharges into the sea. There is also, farther to the east, an island which does not appear on any of the charts.

There were also hundreds of small seal in sight and literally millions of water-fowl, principally little auks. Several bears too were seen on the ice during the day while in the evening fourteen walrus were counted asleep on a pan of ice within one hundred yards of the ship.

Fram fiord had been tentatively selected as the site of the Ellesmere island post. The ice, however, was found to be solid for some miles outside the entrance to the fiord, and the attempt had finally to be abandoned. The following day, the ice not having opened up at all during the night, a small harbour was explored, just inside of Smith island, which was named Craig harbour by Inspector Wilcox

and Captain Bernier, and after noon the ship sailed along the coast toward cape Tennyson, until again stopped by solid ice. During this trip a sketch was made of the hitherto uncharted portion of the coast, and Stewart island and Cory glacier were named, after the Honourable Charles Stewart, Minister of the Interior and Mr. W. W. Cory, Deputy Minister.

Conditions for approaching Fram fiord proving to be no more favourable next day, it was rather reluctantly decided that no further delay could be permitted and that perforce, the post must be established at Craig harbour.



CRAIG HARBOUR, ELLESMORE ISLAND.

This outpost of Canadian civilization, consisting of a Police Post, Customs House and Post Office, was the farthest north of the 1922 expedition—830 miles from the Pole.

There followed eight days of feverish haste and almost unceasing work. Two years' equipment and supplies for seven men had to be taken ashore and sorted out, while living quarters and a storehouse had to be erected, or at least brought so far along toward completion that the police could with safety be left to their own resources.

The harbour proved to be shallow and though anchored in only about seven fathoms of water, the ship was about one and a quarter miles from the landing place. This distance, even with launches to tow the small boats, took a considerable time to cover, and laden boats could be taken to the landing place only at or near high water.

Craig harbour is about three miles wide at the seven fathom line where the ship was anchored, and about one and one-half miles wide at the head of the bay to which the water shoals very gradually. The valley is flat and low, with the foot of the glacier about two and a half miles from the shore line and apparently still receding. It is evident that it is many years since the glacier actually discharged into the waters of the bay.

From a short distance off shore an old shore line is quite apparent, showing that since some not very remote age, geologically speaking, the land has lifted, the elevation of the old shore line now being about forty to sixty feet. At the same time there were seen, only some few feet above the present high water mark, the stone foundations of several old Eskimo igloos. From the condition of these ruins, and from the moss and lichens growing on them, they must be several hundred years old, so that the uplift of the land antedates that considerably.

The valley is surrounded by limestone-capped granite hills from 1,800 to 2,000 feet in elevation, cut into by many tributary valleys or draws, and it is quite apparent from the new appearance of much of the material at the mouths of these draws, that nature is still very busy in her many ways and that geologically speaking, the valley is still "young."

After going thoroughly over the whole valley, it was decided to place the buildings on the northwest side at the foot of the cliff and close to high water mark. This site gives good protection from northerly and northwesterly winds, ensures the best view out over Jones sound, and takes greatest advantage of the early spring and late fall sunshine.

The waters of the bay abounded in sea lice, or "shrimps", and an occasional small fish, species unidentified, was seen. On shore no animal or bird life was seen although a couple of very old caribou horns were picked up, and a few fox, rabbit and musk-ox tracks were noticed. However, with the millions of little auks and other waterfowl just outside the harbour, and the numerous bear, walrus and seal in the bay between here and Fram fiord, there would appear to be no need for apprehension concerning the game supply.

No grass was seen, and only one small piece of willow about one-quarter of an inch in thickness. The only vegetation here was moss and heather.

Major Logan, the representative of the Air Board, was able to find a site sufficiently level and smooth for an aerodrome on the opposite side of the valley.

A plane-table and photographic survey was made of the valley and its vicinity, and a bronze tablet was set in solid rock, the markings of the tablet



830 MILES FROM THE POLE.

An Arctic aeroplane landing ground. Major Logan of the Air Board marking the most suitable ground by planting the Canadian Air Force ensign thereon.

being "Canada, N.W.T. 1," signifying the first tablet set in Franklin district under the direction of the North West Territories Branch, Department of the Interior. Observations for latitude, longitude, and azimuth, were taken by Mr. L. O. Brown, D.L.S., the surveyor, over this tablet with the six-and-a-quarter inch transit; Major Logan also observing with his sextant and an artificial horizon. The observations showed the post to be situated in latitude  $76^{\circ} 10'$  north, and longitude  $81^{\circ} 20'$  west of Greenwich.

On August 28, all equipment and stores were ashore and it was decided that if the weather held, the expedition would remain a few days to assist with the buildings. That night, however, the bay filled with very heavy ice and a bad snowstorm came on, and as from one to three inches of ice had been forming in the harbour each night, Captain Bernier decided that winter in the harbour was too close at hand to take any further chances, and, picking up the last mail and saying the last farewells to Inspector Wilcox and his men, the *Arctic* steamed out of the harbour shortly after midnight.

Having made arrangements for a system of communication by smoke signals when the ship came in sight next year, the return journey was begun after having

established the most northerly post office in the world, with the possible exception of one on the island of Spitzbergen. This new outpost of Canadian civilization, consisting officially of a police post, customs house and post office is only slightly more than eight hundred miles from the north pole.

Working her way southward through loose ice, the ship again skirted the east coast of Devon island, and having rounded cape Warrender, part of a day was spent in making, at the request of Inspector Wilcox, an examination of Dundas harbour, with a view to establishing at some future date a headquarters post there for the north. The harbour is some four or five miles long by about one and one-half miles wide, and is almost completely landlocked. At its south-eastern corner is a good site for the post, well sheltered from winds and sea, and with a good anchorage close by, while from a small hill nearby a commanding view may be had of Lancaster sound.

Leaving Dundas harbour, an attempt was made to reach Pond Inlet by going down through Navy Board inlet to the westward of Bylot island, and thence through Eclipse sound. Reaching Canada point, however, solid ice was seen ahead and a course had to be laid around Bylot island to the eastward. To the great disappointment of all Pond inlet was found to be still full of ice, though it had been broken somewhat since the first visit. The ship was able to work her way almost up to the post, but a change in the tide swept the ice back through the inlet and she was obliged to enter Albert harbour for shelter. Sergeant Joy had, however, been able to board the ship by small boat while she lay near the post and he remained on board as a guest until she left for the south.

Advantage was taken of a three days stay there to load about one hundred and twenty tons of stone for ballast, several Eskimos assisting in the work. About twenty-five tons of coal also were landed to save time later should unloading prove to be difficult at the post, and in addition, a photographic survey of the harbour was made by Mr. Brown and his assistants.

In the harbour for part of this time Captain Munn's ship the *Albert* was anchored, and after her departure, the *Bayeskimo*, the Hudson's Bay Company's supply ship, arrived.

The *Arctic* and the *Bayeskimo* were able to reach the post on September 6 and anchored in a temporary harbour formed by a large pan of ice held back by an iceberg grounded in the shallow water off the post. The weather was very favourable and considerable material was sent ashore during the day. A beginning was made on the Mounted Police living quarters, much more rapid progress being made than at Craig Harbour owing to the experience gained there, and owing to the fact that the workers had the assistance of several Eskimos.

About 5 p.m. with nearly every one ashore working, a large pan of ice came drifting down with the change of tide, and after the sharp peremptory barks of the whistle had recalled the shore party to the ship, anchor was hoisted and progress made for open water, farther from shore and correspondingly safer, the *Bayeskimo* doing likewise.

That night proved to be a bad one, a heavy wind accompanied by driving snow entirely cutting off all chances of seeing the land, while the ship was almost completely at the mercy of the rushing ice pans. With the approach of daylight, however, and the change of the tide, the weather cleared and the ship again anchored off the post and unloading was resumed.

The last loads were sent ashore about 4 p.m. and almost immediately thereafter the anchor was weighed and the ship had to move out on account of the ice coming in, as before, under the influence of the tide. It was possible to get somewhat closer to shore later on in the evening, and the last letters were received

and farewells said; then about 9 p.m. with three long blasts of the whistle, which started all the dogs in the village howling, the *Arctic* began to force her way eastward out of the inlet towards the open sea and home.

During the short stay the carpenters had made good progress with the house, but it was not nearly complete. There was no hesitation in leaving the police, however, as they would be able to get assistance here both from the Eskimos and from the Hudson's Bay Company.

As at Craig Harbour, a bronze tablet, No. 2, was set in a large boulder behind the Mounted Police buildings, indicating that the official survey starts at that point. Owing to the short stay there, however, it was possible to do only the preliminary work comprising phototopographic surveys in the vicinity of the post and some triangulation.

Affairs in this district were found to be in very capable hands under Sergeant Joy's charge. He had come here by the Hudson's Bay Company's ship in 1921 to investigate the murder of the trader, Robert Janes, who, it was alleged, was killed by Eskimos to the westward of the inlet. He had gone after the body and after great difficulties and hardships, had found it and brought it to the inlet where he held an inquest. He then put three Eskimos under arrest and summoned several others as witnesses. It is expected that as a result a court will be sent north in 1923 to adjudicate on the case, so that the Eskimos may see that Canadian laws must be respected and may learn to expect justice in all their dealings with the white men, and to appreciate the fact that white men will be punished just as Eskimos will be for any wrong doing.

Twenty-four hours of continuous effort working through the ice brought the ship to open water inside of Button point, some of the ice particularly off Brodeur island (Albert harbour) being very solid and on one or two occasions requiring repeated charges by the ship at "full speed ahead."

Contrary to expectations, no "middle ice" was seen while crossing Baffin bay, the probable explanation being that it had been driven towards the south-easterly coasts of Baffin island by the almost continuous northerly and north-easterly winds of the preceding two or three weeks.

After a good passage across the bay, the ship arrived off Godhavn, Disko island, Greenland, early on the morning of September 13.

Inspector Wilcox, having been unable to procure either dogs or Eskimo boots (kamiks) at Pond Inlet, had asked that the ship call at Godhavn on her return trip to endeavour to arrange for a supply of these to be called for on her way north in 1923.

The Officer in Charge was warmly greeted by Dr. Porsild, in charge of the experimental station at this point, and by his son, the assistant scientist. Dr. Porsild, who speaks perfect English, explained that the District Inspector was absent at the time, and that he himself was just on the point of leaving in a launch to take the mail across the sound to a steamer which was ready to leave for Denmark. He introduced the Officer in Charge to Mr. Neilson, the Government agent, who explained that, although in all probability the Godhavn settlement itself could not spare the dogs and boots the Police wanted, he had no doubt that they could be collected from some of the other settlements, and that he would be glad to supply them when called for in 1923.

Only about two hours were spent ashore but the visit though brief, was most interesting. The settlement is indeed an oasis in the desert. The houses, particularly some of those occupied by the Government officials, are very attractive and quite pretentious, being built of lumber imported from Denmark and are nicely painted in red with white trimmings. Neat, clean, well laid out paths lead from one point to another in the settlement, with quite large ware-

houses in the vicinity of the landing place. The Government scientific station and the residence of Dr. Porsild are situated across the harbour, unfortunately too far away to be visited in the short time available.

The party appeared to be a source of great interest to the inhabitants of the village. Mr. Neilson stated that the *Arctic* was the first foreign ship to visit the port for some years.

Most of the men of the settlement were apparently absent from the village, probably engaged in their regular pursuits, but the party was enthusiastically welcomed by those who happened to be home, as well as by the women and children. The natives, or Greenlanders, as they prefer to be called, seemed to be happy and prosperous, and all appeared to be clean, and well and comfortably dressed, some of the women even donning their holiday attire in honour of the visit. The population of Greenland is about 13,000, of whom some 300 to 350 are Danes.

The women's dress was particularly attractive and sensible. They wore a smock of heavy linen or cotton, generally in a checked pattern, and lined usually with very heavy red flannel. The wide neck and the sleeves were trimmed with fur, or plush, sometimes with touches of embroidery on white linen. They wore no skirts, only short neatly fitting sealskin breeches, decorated with what, at first sight, appeared to be bead work, but which was really a pattern made by sewing on to a strip of leather numerous minute brightly coloured pieces of thin leather in a pattern. The amount of patience necessary for the more elaborate of these decorations must be very great. The party were informed that the natives themselves have been taught by the Danes to tan and dye their own leather for this purpose, and also to make the long varicoloured boots (*kamiks*) which complete the summer costume. These boots are very neatly made, being of course hand sewn, with waterproof soles of "oogjook," or bearded seal, and are worn over a lining or stocking of sealskin, with the foot of caribou or baby musk-ox, the fur being worn next the skin, and the stocking being finished off at the top, when it comes outside the breeches, with a band of fur, plush or of finely embroidered linen. The boots themselves are of various colours, dark blue, purple, bright red and some of them pure white. The leather is soft and pliable, and the finish indicates a high degree of skill in tanning and dressing. The boots also are decorated with strips of the same fine coloured leather work as used on the breeches.

After a couple of hours ashore, the Officer in Charge of the expedition invited Mr. Neilson and Dr. Porsild out to the ship for lunch. They were interested in the wireless equipment, and looked over with evident appreciation the file of daily bulletins of world news, provided by the ship's wireless operator.

Shortly after lunch the visitors departed for the shore and with a salute of three long blasts of the whistle, the *Arctic* was once more on her way on the last "leg" of the voyage, the Captain holding a course well to the westward so that he might get clear of the northerly current along the coast before heading south, which he did when we had reached longitude 57 degrees west.

At 8 p.m. next day, September 14, the Arctic circle was crossed.

After a good trip south the *Arctic* ran into heavy head winds in the vicinity of Belle Isle and was unable to enter the strait until the evening of September 23. Except for further fresh head winds in the vicinity of Anticosti, the trip up the gulf and river St. Lawrence to Quebec was uneventful and, picking up the pilot at Father Point, the ship reached Quebec on the afternoon of October 2, having been delayed somewhat by the smoke of the forest fires raging at various points in the townships south of the river.

## CANADIAN ARCTIC EXPEDITION 1923

J. D. CRAIG, B.Sc., D.L.S., *Officer in Charge*

The 1923 expedition began on July 9 when the C.G.S. *Arctic* cast off from her moorings at the King's Wharf, Quebec. The ship's complement included, in addition to the Officer in Charge, the captain; his officers and crew; a stipendiary magistrate and a complete court destined to sit at Pond Inlet; a surveyor, representing the Topographical Survey; and a naturalist, representing the Victoria Memorial Museum, Ottawa; a medical officer; a cinematographer; the secretary to the Officer in Charge; the wireless operator; and the Royal Canadian Mounted Police relief, consisting of two men. Major L. T. Burwash, Exploratory Engineer, North West Territories and Yukon Branch, who was going north embarked at Gaspé.

The next point of call was Gready, Labrador. From Gready the ship headed northeast for two days so as to get well to the eastward and thus take advantage



C.G.S. "ARCTIC".

This picture was taken from the C.G.S. "Gulnare" when the "Arctic" was in the gulf of St. Lawrence outward bound in July, 1923.

of the northerly current along the southerly part of the west coast of Greenland. The ship was gradually worked northward through a dense fog. The fog suddenly cleared late in the afternoon of July 29, when Disko island was visible in the brilliant sunshine thirty or forty miles "dead ahead".

The harbour of Godhavn was safely entered early the next morning, when the *Arctic* was boarded by the Danish trade agent, Mr. Knudsen. He stated that her arrival had been awaited for some time as it was expected that she would have made a much earlier start than usual on account of the exceptional openness of the season in the North. Mr. Knudsen intimated that the dogs and the kamiks (native boots) ordered in 1922 for the Royal Canadian Mounted Police were ready. He also advised that the *Islands Falk*, an inspection ship of the Royal Danish Navy, was in the harbour. This ship apparently was concerned mostly in seeing that the Norwegian whalers, of whom there were several on the coast did not operate within the three mile limit. That this was not their only line of activity, however, was evidenced by the fact that no sooner had the Officer in Charge landed with Mr. Knudsen than he was approached

by the second officer of the *Islands Falk* with a polite but firm request for papers showing the right to land in Greenland. An examination of the documents already handed to Mr. Knudsen satisfied the officer fully, and formalities having been fulfilled and regulations complied with, arrangements were at once begun to get on board the thirty dogs for the police, after they had been carefully



DWELLING OF AN ESKIMO AT GODHAVN, GREENLAND

examined and inspected by Mr. Duval whose experience of over forty-five years in the Cumberland Gulf region qualified him especially for this work.

While these plans were proceeding, the Officer in Charge was joined by Dr. Porsild, the resident scientist, and accepted an invitation to visit the Scientific station where he met Mrs. Porsild and Dr. Lauge Koch, who, after several years spent in exploration in northern Greenland, was in Godhavn awaiting a ship to take him home to Denmark.

Two of these scientific stations are maintained in Greenland by the Danish Government. The scientists study the country and its possibilities and problems from many angles. Natural history, geology, mineralogy, and archaeology all receive attention, and the natives are instructed in the various processes connected with the preparation of their chief exports of pelts, oil, and ivory, and in pressing and dyeing of skins and leather for their own use. The chief objects of the stations might be said to be "the welfare of the natives, and the progress of the country."

Courtesies were exchanged, the officers of the *Arctic* taking tea on the *Islands Falk* and the officers of the latter ship and the Danish officials of Godhavn with their wives coming on board the *Arctic* in the evening to see the moving pictures of the Arctic expedition of the previous year. Dr. Koch, who was among the visitors, later gave us a very modest account of his trip across the Greenland icecap which was fraught with very great hardships. Early next morning the *Arctic* moved slowly out of the harbour in the fog, which, however, soon cleared, and she once more headed northward. That afternoon a farewell wireless message was received from the commander of the *Islands Falk* and in reply the Officer in Charge cordially reciprocated the kind wishes.

Sailing northward from Godhavn with the Greenland coast close at hand, a sharp outlook was kept for the "middle ice" which at that time of the year is usually a short distance off the coast, extending down from Melville bay and cape York. Although a few large bergs were seen, no field or pack ice was sighted, nor was there any "ice blink" to indicate the presence of ice below the horizon. After getting well to northward, and still seeing no signs of ice, Captain Bernier came to the conclusion that the ice must already have

passed to the southward, and that it would be quite safe to head directly for Craig harbour. The course was accordingly changed to almost due west, thus avoiding Melville bay so dreaded by mariners. South of cape York the water remained open and no ice was encountered until the ship had reached Glacier strait between Ellesmere and Coburg islands, and then that met with was loose and not in sufficient quantity to delay progress.

It was found that Stewart island, discovered in 1922, really consisted of two islands, the smaller of which was given the name of Stewart Junior. The glacier immediately east of Cory glacier was named Finnie glacier after Mr. O. S. Finnie, Director of the North West Territories and Yukon Branch. The glacier on the northerly end of Coburg island was named after Mr. L. A. Rivet, K.C., stipendary magistrate accompanying the expedition.



STEWART ISLANDS IN JONES SOUND

These islands are situated off the south coast of Ellesmere island and are named after the Honourable Charles Stewart, Minister of the Interior.

Arrangements had been made with Inspector Wilcox in 1922 to maintain a lookout on the summit of King Edward VII cape about the time the ship was expected, and to have material there for making a smoke signal. In case the ship should be prevented by ice from getting into Craig harbour, then a smoke signal would be sent up and the police would make their way to the ship over the ice. In consequence of this arrangement, all glasses on the ship were trained on the cape from the moment it was sighted, early on the morning of August 5. No smoke signal was seen, however, but shortly after, when the cape had been rounded and the *Arctic* was headed for the post, a tent was spied by Captain Bernier on shore just abeam, and a canoe, vigorously paddled by two men, could be seen leaving the shore and approaching the ship. The occupants, who proved to be two constables from the post, were soon aboard and were overjoyed to meet the members of the expedition as they had not seen any human being except members of their own party since the end of the previous August. Shortly afterwards the anchor was dropped off the post, and the police launch, with Inspector Wilcox in the stern, was seen coming out to the ship.

The reason no smoke signal had been seen was that the watchers on the point had confined their attention to Lady Ann strait to the southward of Coburg island by which Craig Harbour had been approached in 1922, never dreaming that the *Arctic* might come in around the north end of Coburg through Glacier strait.

After the excitement of the first few minutes had subsided somewhat, the news of the year at the post was gradually told, and by degrees the police were informed as to the world happenings since the *Arctic* left the previous year. The health of the detachment throughout the year had been excellent, and there had been no accidents. The Eskimos, however, had not been so fortunate, and had lost two young children from some disease unrecognized at the time, but diagnosed by Dr. Livingstone, from the inspector's description, as a severe type of influenza. The constables of the Royal Canadian Mounted Police had apparently found the conditions less tedious than expected as several had already volunteered to stay three years instead of two. The quarters designed and supplied by the Public Works Department had proved to be most satisfactory in every way, being easily heated, well lighted and with no sign of "sweating" or frost on the inside walls even in the coldest weather. This latter is the true test of a properly built house in the north.

The buildings of the post presented a most pleasing appearance in a fresh coat of grey paint with black trimmings, and a neat terrace of sand and white-washed rocks around the foundation. From the flagstaff in front of the living quarters flew the Union Jack, the base of the pole surrounded by a neat cairn of rocks. The whole was bordered by a ring of whitewashed stones, enclosing a circle carpeted with deep moss. The appearance of the post reflected great credit on all concerned. Over the door was a long sign in black letters, reading "Royal Canadian Mounted Police—Customs—Post Office". The party had seen no game at Craig Harbour, but plenty at Fram fiord, sixteen or seventeen miles away. They secured about ten bears during the year, and a few foxes, but no seal or caribou, the hunting season for these being over before they had completed the buildings and other necessary work around the post in 1922. Many walrus were seen but were not hunted for lack of a boat of the proper type.

After matters had been thoroughly discussed with Inspector Wilcox, it was decided to bring aboard all hands including the Eskimos and their dogs, and to head for cape Sabine, as it was realized that ice conditions might necessitate a very short stay at that point, if indeed it could be reached at all, and that all the help available would probably be needed to get supplies and equipment ashore quickly and to make at least a start at erecting the buildings for a new detachment.

The ship got under way again late in the evening and a straight course was steered for Etah, Greenland, which place was reached at 6 p.m. on August 8. Here were found Dr. Donald B. MacMillan, the United States explorer, and his ship the *Bowdoin*. He had sailed from Boston a few days before the *Arctic* left Quebec, and after calling at Gready, Labrador, and Julianehaab, Greenland, he had reached Etah four or five hours before. Dr. MacMillan and several of his party spent the evening on board and were entertained with the pictures of our 1922 expedition. Afterwards a short visit was paid to the *Bowdoin*.

Dr. MacMillan kindly offered to act as interpreter for Inspector Wilcox, and largely through his efforts it was possible to make an arrangement by which the only two Eskimo families remaining at Etah agreed to accompany the police to cape Sabine, or in the event of it being found impossible to land there, to go to Craig Harbour with them and spend the winter there. The Eskimos in fact appeared well pleased at the opportunity of getting away from Etah, and this was explained when it was learned that they believed Etah to be under the influence of a "bad devil", many members of their tribe having died there during the previous winter of a disease somewhat resembling influenza in its effects.

These Etah Eskimos appeared to be real plutocrats, judged by Eskimo standards. They possessed a fair number of dogs, plenty of sleeping skins and tents, a boat, a kayak, rifles, etc., and were well clothed. In fact the women's clothing was made of white and blue fox.

Having said good-bye to Dr. MacMillan and his companions, anchor was hoisted at 1.30 a.m. August 9 and once more the ship headed for cape Sabine. Within two hours she was again among loose pack ice, and by 8 a.m. had penetrated the pack to a point where further progress was temporarily impossible. The ice opened up somewhat later on, and by 3.45 p.m. the Captain was again forced to tie up, when ten or twelve miles southeast of the cape with thick, heavy, Kane basin ice all around and no open water in sight to the northward although a continuous watch was kept from the crowsnest.

During the next twenty-four hours several attempts were made to get farther north and closer inshore towards cape Sabine, but the ship was able to move barely enough to offset the rapid southerly drift of the ice under the influence of the strong current coming out of Kane basin. By means of cross-bearings on points on shore a close check was kept on the ship's position and movements, and on several large bergs between the ship and the coast of Ellesmere island.

On the evening of August 10 the Officer in Charge conferred with Captain Bernier and Inspector Wilcox, and as not the slightest sign of open water appeared to the northward, even from the crowsnest, and as the weather showed no signs of any immediate change, it was decided that under the circumstances there was no option but to retreat, and the order was reluctantly given to get the ship out of the ice as soon as possible and return to Craig Harbour. This forced retreat was particularly disappointing as it had been hoped to establish two posts during the season.

The instructions to Captain Bernier to abandon the attempt to reach Sabine were given about 8 p.m. of the 10th, and steps were immediately taken to break a way out of the ice. At 7.30 o'clock next morning, after backing and ramming one jam after another for nearly twelve hours, only slight progress had been made. About this hour, however, the ice opened somewhat, under the influence of some changing current, and after another half hour's ramming, the ship was able to free herself and was soon sailing rapidly south before a fresh northerly breeze.

The dogs on deck were very miserable at this time. In addition to the thirty purchased for the police at Godhavn, there were Kakto's, the police dogs from Craig Harbour, and those belonging to the Etah Eskimos, about fifty or sixty dogs in all. They were chained on deck in a small enclosure formed by rearranging the deck load, and with the rolling of the ship, and an occasional sea coming over the rail or backing up through the scuppers, they were most uncomfortable, although the police did everything in their power to keep them dry. Hardy as these dogs appear to be, and in spite of the immense amount of cold and exposure they can stand during the winter, like their Eskimo masters they are unaccustomed to getting wet, and show their dislike for it very emphatically.

The fresh breeze helped the *Arctic* speedily on her way, and by evening she was again among loose ice off the coast of Ellesmere, with little or no roll and with Coburg island once more in sight to the southwest.

Next morning, the 12th, the ship entered Glacier strait and, after making her way through considerable quantities of loose ice, anchored in Craig harbour about 1.15 p.m. Mr. F. D. Henderson, D.L.S., the surveyor representing the Topographical Survey, with one or two men to assist him, went ashore at once to begin the final survey of the police post site. The other launches and the boats were promptly lowered into the water, and Eskimos, dogs and freight were sent ashore as rapidly as possible. The two Eskimo families from Etah appeared well pleased at the prospect of a winter so far to the south, and in addition, having lost many of their friends and relatives from the "flu" epidemic of last winter, were apparently glad of a new home where they would be beyond the power of the "devil" who they thought was after them at Etah.

An official visit was made to the police quarters later on in the afternoon and everything found in perfect order and a great credit to the Inspector and his men. The Officer in Charge officiated at the opening of the new post office, and had the honour of seeing the postage stamps on the first few letters cancelled with the new dating stamp. Mr. J. D. Soper, naturalist, at once began collecting wild-life specimens for the Victoria Memorial Museum at Ottawa.

Wireless operator Earl made a temporary installation of the wireless equipment sent north for police use by Commissioner Courtlandt Starnes of the Royal Canadian Mounted Police. There was not sufficient time to set up the proper poles for the aerial, but by running a wire from the top of the police flag pole about eighteen feet high through a door of the barracks to the receiving set, and by using a ground wire casually attached to a shovel pushed into the gravel of the creek near by, messages broadcasted in code from Germany, France, and England were successfully read inside of three-quarters of an hour from the time of landing the outfit. This augured well for the winter.

As there appeared to be practically no ice in the large bay to the northwest of Craig Harbour, it was decided that it would be well to make a short exploratory trip to Fram fiord and to Starnes fiord, the latter having been discovered by the police during the winter and named by them after the commissioner. The ship hove to off the entrance to Fram fiord at 4 a.m. of the 13th, and the party, including the Officer in Charge, Captain Bernier and Inspector Wilcox, went ashore. Many signs of old habitations were found and also signs of game although the only live game seen were two Arctic hares and two musk-ox. One of the latter was rounded up and driven along the game trail on the hillside to a suitable spot where he was photographed both with the moving picture camera and with the ordinary camera.

The party returned to the ship which then set out westward for the fiord discovered by the police during the winter, and in coasting along the north shore of the bay very nearly ran on to an uncharted reef, the presence of which was revealed by a few small grounded bergs. The entrance to Starnes fiord was made shortly after noon, and a launch was sent up the fiord with an exploratory party. After proceeding about twenty miles to a point where an additional ten miles could easily be seen, the party returned to the ship. As far as could be seen the fiord is uniformly about the same width as at the mouth, that is about two and a half miles wide, and from the appearance of the hills to the northwest the fiord might still continue for an additional thirty miles inland. Just outside of the mouth of the fiord on the return trip to Craig Harbour, the ship grounded at full speed on another uncharted reef. The head line showed a depth of three fathoms at the bow and fourteen fathoms at the stern. Fortunately she ran on the reef just at low tide, and when some thirty tons of the deckload of coal had been moved from the bow of the ship to the stern, the rising tide floated her off about forty-five minutes after she had grounded.

Re-entering Craig harbour at 2 a.m. on the 14th and going ashore all there were found fast asleep. They were soon on the move again, however, and all hands returned to the ship. Mr. Henderson had completed his survey by working until 11 o'clock p.m. on the 12th, and from 4.30 a.m. to 8.30 p.m. on the 13th, assisted at times by one of the constables and some of the Eskimos. Mr. Soper was rather disappointed with the results of his stay here as he was able to secure only comparatively few specimens, animal life seeming to be particularly scarce in the vicinity of the harbour. At 6.30 a.m. the police launch left the ship, heading into the fog towards shore with the three constables who were to remain until 1924, and with three long blasts of the whistle as farewell to them, the *Arctic* once more was on her way southward.

Philpots island was rounded during the night, and about noon cape Warrender was passed and Lancaster sound entered. There was a large pan of ice to

the northward some miles in extent on which it was possible to spot, with the binoculars, no less than seven polar bears at one time. Two large walrus on a pan of ice close to the ship were also seen.

Dundas harbour was entered at 4.30 p.m., August 15, one of the launches feeling the way for the ship with the lead line, and she came to anchor in a small bight in the southeast corner of the inner harbour. After looking over the ground as thoroughly as the shortness of the time at his disposal would permit, Inspector Wilcox selected a site for a future police post on a bench facing south and overlooking Lancaster sound, and Mr. Henderson that evening made a survey of the reserve. No astronomic observations were possible on account of the thick fog prevailing at the time, and the survey was, therefore, made by compass only, four corner posts being set. The harbour was left again about midnight, and the ship continued on westward along the southern shore of Devon island, passing through considerable loose ice during the day, reached Erebus harbour near the southwest corner of Devon island the following afternoon, August 17.



THE FRANKLIN CENOTAPH AT BEECHY ISLAND

Everyone who could be spared was allowed to go ashore to be present at the ceremony of once more raising the Union Jack to honour Franklin and his men, for whom a cenotaph has been erected here. It is difficult to imagine a bleaker or more inhospitable spot than Erebus Harbour, and yet this had been the quarters and practically the home of Franklin and his

party for nearly a year. The harbour itself is formed by Beechey island, a peninsula at low tide, close to the western limit of a bay near the southwest extremity of Devon island. Beechey island has a considerable elevation, and is rocky and precipitous, except for the gravelly benches on its northerly side upon which stands the cenotaph close to the ruins of the old storehouse used by the Franklin search parties. From the cenotaph the view southerly is entirely cut off by the cliffs of the island, while to the east and to the west glimpses only of Lancaster sound are visible. To the north across the bay lies the bleak and barren coast of Devon island. It was a beautiful day, bright and sunny, but a stiff breeze from the westward made it decidedly unpleasant in the vicinity of the storehouse which early in the afternoon was deep in the shadow of the cliff in the rear. With the members of the Royal Canadian Mounted Police, the technical personnel, the ship's officers and crew all at attention, the Union Jack was slowly hoisted to the top of the flag pole above the cenotaph, and fluttered in the breeze amid complete silence for a minute. At the conclusion of the ceremony three hearty cheers and a tiger were given for His Majesty the King.

The remainder of the afternoon was spent in searching for relics among the remains of the old storehouse. Captain Bernier's cache of stores constructed during his visit in 1908 had been torn down though built of heavy deals, and a couple of heavy blocks and some rope left by him for possible use in launching or hauling out a boat, were lying outside the cache in a tangled mass. Every barrel of the old store of supplies had been cut open,



LIMESTONE CLIFFS, SHORE OF STRATHCONA SOUND, BAFFIN ISLAND.

apparently many years ago, and evidently by Eskimos with crude tools, judging from the jagged appearance of the cuts. A badly broken small boat, built of mahogany, lay on the beach near the storehouse and about 200 yards to the westward lay the so-called yacht, *Mary*, left by one of the search parties for the use of Franklin and his men in case they should reach Erebus harbour without a boat. The whole visit was most impressive and brought home to every member of the party a clearer realization of the difficulties met with, and the hardships endured by those intrepid adventurers and explorers of seventy-five years ago.

Incidentally, the story of the marble slab forming the top of the cenotaph is most interesting. Provided in the first place through the loving thoughtfulness of Lady Franklin, it had been sent north with an American expedition

to be placed at Erebus harbour. As the expedition was unable to reach that point it had to be left at Godhavn, Disko island, Greenland, and was later brought to Erebus harbour by the same Captain M'Clintock who afterwards was successful in discovering far to the south of Lancaster sound the last traces of Franklin and his party, and in bringing home absolute proof that they had perished. He, however, was unable to do more than merely leave it lying on the gravel beach, and it was still as he had left it when seen by Low in 1904. It was Captain Bernier's privilege, when he visited the spot in 1906, to make the slab secure by setting it on a base of concrete close to the wooden pillar forming the original cenotaph erected by one of the early expeditions, and from which all the inscription plates had been removed, possibly by natives who needed the metal, but more probably by souvenir hunters.

The Inscription reads:—

“ TO THE MEMORY OF

Franklin, Crozier, Fitzjames and all their gallant brother officers and faithful companions who have suffered and perished in the cause of science and the service of their country,

THIS TABLET

is erected near the spot where they passed their first Arctic winter, and whence they issued forth to conquer difficulties or

TO DIE

It commemorates the grief of their admiring countrymen and friends, and the anguish, subdued by faith, of her who lost in the heroic leader of the expedition the most devoted and affectionate of husbands.

‘ And so He bringeth them unto the haven where they would be ’ ”

To the marble slab is attached a brass plate reading as follows:—

“ This stone has been entrusted to be affixed in its place by the officers and crew of the American expedition commanded by Lieut. H. J. Hartstein, in search of Mr. Kane and his companions. This tablet having been left at Disko by the American expedition, which was unable to reach Beechey Island in 1855, was put on board the discovery yacht *Fox*, and is now set up here by Captain M'Clintock, R.N., commanding the final expedition in search of Sir John Franklin and his companions, 1858.”

A visit was also made to the graves of the men of the early expeditions who died at Erebus Harbour and were buried a short distance from the site of their living quarters. The wooden head-boards are not in very good condition, having weathered badly. After a few members of the party had scaled the cliffs and had made a brief visit to the immense cairn and beacon erected at the top of the cliff on the southern side of the island overlooking Lancaster sound, the party returned to the ship and sailed out of the harbour. Just previously the harbour had been visited by an immense school of white whales. They made their way puffing and grunting like great pigs along the beach in the shallow water up to the head of the harbour, and it could be easily seen how the traders and whalers might round them up and kill them by the hundreds as it is reported they do by pursuing them in small boats.

The following day, Saturday, August 18, about 7 p.m., the ship was abreast of cape Crawford, on the northern point of Baffin island, and later ran into heavy fog off the entrance to Admiralty inlet. Steaming slowly on through the fog she passed Strathcona cape and at 3 a.m., August 19, having run out of the fog, landed Mr. Henderson and Mr. Soper with two constables to assist them in making a survey of a lot at the site of the old post of the Arctic Gold Exploration Company. The ship with the remainder of the party then proceeded on towards the head of Strathcona sound to endeavour to relocate and examine the pyrites vein discovered by Captain Bernier and his men in 1908.

The sound and the surrounding country presented a beautiful sight in the bright early morning light. Mr. Henderson and Mr. Soper were landed at the

mouth of a small creek where there was abundant moss and plenty of grass on the flat, and the benches on the hills around appeared quite green even at this late date. The hilltops were clear of snow, and the general impression received was that of an oasis in the desert. The remains of many old stone igloos near the creek showed that it had for years been a favourite camping ground of the Eskimos, and had probably served as the base for many a caribou hunt, the country in the region of the sound being noted for the abundance of caribou which, however, are apparently being gradually driven farther inland to the southeast by repeated annual huntings.



ANCIENT ESKIMO DWELLING OR IGLOO.

This picture shows the remains of an igloo at Eskimo Point, Strathecona Sound.

Leaving the ship, a party went about fifteen miles up the sound in the large launch, and noted that there was no snow in the gulch, where there had been twenty or thirty feet of snow at the time when Captain Bernier discovered the pyrites. Several samples were secured and indications were seen of a vein some twelve feet wide. The members returned to the ship at 10.45 a.m., Mr. Henderson and his assistants were picked up at 3.30 p.m., and the expedition proceeded once more towards Pond Inlet. It was a most beautiful summer evening with the wonderfully chiselled heights of Baffin island on the right, their vari-coloured, bastioned cliffs, bristling with points and deeply cut with gulches. The lot surveyed by Mr. Henderson is at the mouth of the first creek east of cape Strathcona, and he was fortunately able to secure an observation for azimuth. There is a second creek about four miles farther east almost as favourably situated and with a fine delta covered with moss and grass.

Next day, August 20, about 9.30 a.m., the ship anchored at Pond Inlet, when it was ascertained that Sergeant Joy had gone to Button point, the southeast point of Bylot island, with the prisoners and the witnesses for the trial. This was in accordance with the arrangement of last season when it was thought that if ice conditions in 1923 should prove as bad as in 1922, it would be advisable to hold the court at Button Point as being more easily accessible.

A vast improvement was noticeable in the general arrangements at Pond Inlet since the previous year, both as to the Eskimos and their houses. The Eskimos appeared cleaner, better clothed, and much healthier, while their dwellings had been placed in line along the shore, and the surroundings cleaned up giving a much neater and more attractive appearance to the entire post. The Hudson's Bay Company's manager, Mr. Herodier, reported a much better winter than last year and a heavier fur catch, while the police stated that they had had no trouble at all with the prisoners or the witnesses, or with any of the other natives.

Dr. Mathiassen, a Danish scientist, one of the members of Rasmussen's party, reached Pond Inlet in May having come up from Repulse bay by dog sled. Dr. Mathiassen reported to the police here immediately upon his arrival and produced permits and passports which proved satisfactory to Sergeant Joy. Rasmussen was spending the summer at Coronation gulf and expected to winter somewhat to the westward of that point. It was stated also that his ship had been lost during the previous year and that his party was disbanding. Dr. Mathiassen had been at Repulse bay and on Southampton island all winter. He made a survey of the island and reported that the old maps were considerably in error. He stated that the island is inhabited by about thirty Eskimo families and that there is plenty of game there. He was the archaeologist of the Rasmussen party and was taking home to Copenhagen with him nearly 2,000 specimens of old Eskimo work, utensils and weapons which he procured here and at the other places visited.

As it was necessary to bring the Eskimos needed for the trial up to Pond Inlet from Button Point, the *Arctic* sailed at 3.30 p.m. and anchored off the point at 10 p.m. Owing to bad weather conditions it was late the next afternoon before the natives and their belongings were all on board, and the ship sailed again for Pond Inlet about 5 p.m.

To give some idea of the extent to which the ship was crowded at this time it might be well to enumerate those on board:—

|  |    |
|--|----|
| Officers and crew                      | 26 |
| Technical personnel                    | 7  |
| Judicial party                         | 5  |
| Police                                 | 6  |
| Eskimos, estimated, including children | 75 |

Total personnel 119

There were also about 75 dogs. The confusion on deck where the Eskimos and all their belongings, including the dogs, were quartered, is better imagined than described, and it was fortunate indeed that the trip to Pond Inlet occupied only a few hours.

The trial referred to in the opening paragraph of this report, and an account of which follows, was that of three Eskimos who were charged with the murder of Robert S. Janes, a Newfoundland trader, at cape Crawford, Baffin island, in March, 1920. Sergeant Joy of the Royal Canadian Mounted Police went north in the summer of 1921 and during the next winter and early spring recovered the body of the murdered man, held an inquest and apprehended the three natives, Nukoovdlah, Oorooreangnah, and Ateetah, and brought them to Pond Inlet where they remained under the surveillance of the police.

The court and court officers were as follows: Stipendiary Magistrate, Mr. L. A. Rivet, K.C., Montreal; Counsel for the Crown, Mr. Adrien Falardeau, Quebec; Counsel for defence, Mr. L. Tellier, Quebec; Registrar, Mr. F. X. Biron, Montreal; Interpreter, Mr. Wm. Duval, for many years resident of the Canadian Arctic.

The court was formally opened at 10.15 o'clock a.m. on Saturday, August 25, with the proper ceremonial accompaniments. The ship's party, consisting of the Stipendiary Magistrate, the Prosecuting Attorney, the Attorney for the Defence, the Clerk of the Court, the jury selected from among the ship's officers and crew, the Inspector of the Royal Canadian Mounted Police with a corporal and a guard, and the three prisoners, went ashore in the launch and proceeded at once to the police post buildings where the trial was to be conducted. After the jury had been sworn in, the judge, lawyers, and other officials, fully gowned as they would have been on a similar trial in civilization, the police on duty, in full uniform, with a corporal as the judge's personal attendant, took their proper places. The opening of the court was attended by practically all the members

of the ship's personnel, and by as many Eskimos as could be crowded into the building. The formal opening of the trial was preceded by a few remarks by the magistrate, addressed particularly to the natives, and translated into Eskimo for their benefit by the interpreter. He informed the natives of the purposes of the trial, assured them of justice and fairplay, explained that the proceedings were exactly in accordance with the customs of civilization, and stated that had a white man killed an Eskimo the proceedings would have been exactly the same. The natives plainly exhibited curiosity and appeared much interested in the proceedings. The prisoners, however, did not seem to realize the gravity of the situation. The examination of the witnesses proceeded rather slowly partly on account of the fact that everything had to be done through the interpreter, and partly because an Eskimo when questioned is more likely to give the kind of answer that he thinks is expected than to analyze his own thoughts on the subject and express what he really thinks.

The court held two and sometimes three sessions daily except on Sunday, and evidence was all in by noon on Wednesday, August 29. The addresses of the attorneys and the magistrate's charge to the jury were made on the following morning, Thursday, and after a half hour's deliberation, the jury returned reporting that their verdict was that Nukoodlah was guilty of manslaughter, Oorooreangnah guilty, with clemency recommended, and Ateetah not guilty. The judge immediately sentenced the first to ten years in Stony Mountain penitentiary, the second to two years' close confinement at Pond Inlet with hard labour, and declared Ateetah a free man. He also took this opportunity of explaining to the prisoners the enormity of their crime and impressed upon them and upon the other natives present the fact that he considered the sentences very lenient and that any future occurrences of a similar kind would be dealt with much more severely. The prisoners were immediately taken on board the ship in close custody. In the afternoon the police collected practically all the native inhabitants of the village at the police post, where they were addressed by the magistrate, who explained again the objects of the trial and the reasons for the police coming into the north, emphasizing the fact that they were not only to protect the white man from the Eskimos, but also to see that justice was done to the Eskimos in all their dealings with the white man. The natives listened most attentively and the meeting was very impressive. Many compliments were paid by the magistrate and other court officials to the value of the efforts of Sergeant Joy in the preliminary work in connection with the trial.

Dr. Mathiassen was a much interested spectator at most of the sessions of the trial.

Dr. Livingstone occupied his time during the ship's stay at Pond Inlet in making a medical examination of as many as possible of the natives, men, women and children, who could be collected and brought before him. Mr. Herodier, the local Hudson's Bay Company's manager, very kindly allowed the doctor to use one of the rooms of his building for this purpose, and also gave him the services of the Hudson's Bay Company's interpreter, who, by the way, is a native of Labrador. Speaking generally, Dr. Livingstone found the health of the natives much better than might be anticipated from the appearance, for instance, of their teeth, and from the prevalence among them of an affection of the eyes.

Mr. Henderson was carrying on his survey of the sites of the police post, and of the Hudson's Bay Company's post during the trial, and with the assistance of some of the police, was able to complete the surveys before the ship sailed. Some slight diversion was provided for the natives by a moving picture show on the deck of the *Arctic* one evening, about ninety natives accepting the invitation to come out to the ship. It was very interesting to note the Eskimos' comments and exclamations when the pictures taken at Pond Inlet in 1922 were shown on the screen. They are much more demonstrative than a civilized

audience, and talked audibly to each other about the pictures. In fact, they often addressed remarks to pictures of friends when thrown on the screen. When shown pictures of southern scenes, such as "skyscrapers", railroad trains, flying machines, growing timber, which they, of course, had never seen, crowds of people and animals, such as horses and cows, to which they were entirely unaccustomed, they listened in absolute silence and with the utmost attention to the running explanations of the interpreter. There is no doubt that here, as elsewhere, the moving picture will be of very great educational value.

Anchor was weighed and the ship left Pond Inlet that evening with a load of Eskimos, their families, dogs and belongings, to land them at Arctic bay in Admiralty inlet. This extra trip of several hundred miles was taken at the request of Inspector Wilcox, as it was realized that it would otherwise be impossible for these natives to get to suitable fall and winter hunting quarters, and that if they were allowed to remain at Pond Inlet they would practically become charges of the police and might possibly be forced to remain there during the entire winter. The natives were landed early in the morning of September 2, and the ship was immediately headed for Pond Inlet again to pick up those



ESKIMO DWELLING OR TUPEK, PANGNIRTUNG.

A light structure of wood, or originally whale ribs, supports a covering of skins and canvas, the edges being held down by stones.

of the party who had remained there to complete their work. All hands were on board the ship by 10 p.m. on September 3, and the homeward voyage was begun.

Only fair time was made down the east coast of Baffin island, and after passing a considerable number of bergs near the entrance of Cumberland sound the ship was anchored off the Hudson's Bay Company's post, Pangnirtung fiord, on the morning of the 11th. It had been decided to make a considerable stay here in order to enable the chief engineer to chip the boilers and to repair one of the furnaces. The time was well occupied in assisting the police to erect their buildings, almost everyone taking a hand at one time or another, with the result that by the time the ship was ready to leave, Inspector Wilcox and his men were fairly comfortably housed. Many tons of supplies were also sent ashore for the use of the police, and something over one hundred tons of rock ballast, collected by Eskimo labour, were put in the ship's hold and on deck.

At Pangnirtung Dr. Livingstone continued his examination of the natives. This work is kept up from year to year, so that in the course of time a val-

able record of the trend of the health of the natives will be available. Within a few years it should be possible to state authoritatively whether it is improving or deteriorating. Mr. Henderson, as at Pond Inlet, made official surveys of the Hudson's Bay Company's lands and the police post site. During the stay at this point, the first snowstorm of the season occurred, and snow fell to a depth of eight or ten inches.



THE C.G.S. "ARCTIC" AT ANCHOR OFF PANGNIRTUNG.

The usual moving picture show on the ship for the benefit of the natives was given on the 19th, when about one hundred Eskimos saw the pictures of their fellow natives at Pond Inlet taken in 1922, and also some of the pictures of various scenes in civilization. As at Pond Inlet they displayed the greatest interest in all the pictures. The annual moving picture show on the Government ship is eagerly looked forward to at each of the posts and is considered one of the big events of the year.

It still continued snowing intermittently and before the ship left on September 22 there was nearly a foot of snow on the ground at sea level, with of course considerably more than this on hills in the vicinity of the fiord. That morning the launch belonging to the detachment came out to the ship where she lay at anchor, and final farewells were said all around. She left for the shore about 9.30 a.m. with three cheers ringing in the ears of those who were being left behind, and amid continued blasts of the *Arctic*'s siren and whistle. Shortly after leaving the post the Hudson's Bay Company's steamer *Nascopie* was sighted entering the mouth of the fiord for her annual visit to the post. About an hour later she passed within 100 yards, and the moving picture man was able to secure some fine pictures for the screen.

With a fair wind the ship made good time, passing the latitude of the entrance to Hudson strait on the 24th and sighting Belle Isle late on the 28th. The *Arctic* being comparatively light, rolled heavily in the Atlantic ground swell, but no one minded this in the least as the three months aboard had made hardened seamen of all. Passing through the strait of Belle Isle on September 29, good time was made through the gulf of St. Lawrence, the pilot was picked up at Father Point on the afternoon of October 2, and the *Arctic* docked at Quebec on the 4th at 3.30 p.m., being welcomed to her berth by salutes from the whistles of the other steamers in the harbour.

Speaking generally, it may be said that ice conditions during the season were entirely different from those of 1922. In that year heavy ice was encountered a little north of the latitude of Godhavn and the ship followed up the eastern edge of this ice until crowded close to the shore just off the Devil's Thumb where the *Arctic* was held for upwards of forty-eight hours before being able to break her way through to the westward. No ice was then encountered until near Button point, Bylot island. Pond Inlet was found to be crowded with loose ice, and solid, unbroken winter ice was met about ten miles up the inlet near cape George. The ship was unable to make any headway through this as it was from three to four feet thick and still fairly solid, and communication had to be established with the post at Pond Inlet by sending men up over the ice. This ice broke up during the trip to Craig harbour and Dundas harbour, and on the return two or three weeks later it was possible, by taking advantage of the changes in the ice due to the tides, to spend parts of two days anchored off the Pond Inlet post and thus get the cargo ashore though at considerable risk to both the *Arctic* and her small boats. In 1923, however, after leaving Godhavn, practically no ice was seen excepting an occasional iceberg in Baffin bay; and Pond Inlet was found to be entirely free of ice. At Pond Inlet it was heard that although there had been less than a week of open water during 1922, and that not until late in August, in 1923 the inlet had cleared in July and apparently would be altogether free of ice for from six weeks to two months. The same conditions were found at Craig Harbour and to the westward towards Fram fiord. In 1922 it had been impossible to take the ship more than half way from Craig harbour to Fram fiord as Craig harbour itself was continually full of ice. In 1923 there was no ice in sight, and the *Arctic* was able not only to approach close to the entrance of Fram fiord, but was able to proceed to the westward and go some distance up Starnes fiord which had been discovered during the previous winter by members of the detachment from Craig Harbour.



VIEW LOOKING NORTHEASTWARD UP PANGNIRTUNG FIORD.

This of course is typical of conditions in the north, no two consecutive years ever being exactly alike. There appears to be very little evidence to show that years when there are large quantities of ice, and years when the waters are practically free of ice alternate or follow each other in any regular cycle. The outflow of ice, generally speaking, is from the north and west to

the south and east, that is from the polar ocean into Baffin bay and the north-eastern Atlantic through Smith sound, Jones sound, Lancaster sound, Hudson strait and other passages. The difference here between the conditions in 1922 and in 1923 was very evident the moment one stepped ashore. The natives appeared not only cleaner and healthier, but also much happier, while their habitations which had now been arranged in orderly fashion were certainly much more presentable from a white man's point of view. The police have taken an active interest in the health of the Eskimos and in the sanitation of the village, and their efforts have been strongly supported by the officials of the Hudson's Bay Company.

## CANADIAN ARCTIC EXPEDITION, 1924

F. D. HENDERSON, D.L.S., *Officer in Charge*

The C.G.S. *Arctic* which was used for the transportation of the 1924 expedition sailed from the city of Quebec on July 5. This was two weeks later than the date originally set, owing to unforeseen delays in repairing and loading the ship.

The Officer in Charge was Mr. F. D. Henderson, and the navigation of the ship was under Captain J. E. Bernier. The members of the expedition included Mr. A. Ross, secretary to the Officer in Charge; Dr. L. D. Livingstone, medical officer; Mr. J. D. Soper, naturalist, representing the Victoria Memorial Museum, Ottawa; Mr. William Choat, wireless operator; Mr. R. S. Finnie, assistant operator; and Mr. Roy Tash, cinematographer and photographer. Six members of the Royal Canadian Mounted Police force were taken north to relieve members whose terms had expired and to man the new post to be established. The total number of persons including the crew making up the expedition at the time of leaving Quebec was forty-one.

The supplies included coal for the round trip and food for the entire party for two years—a safeguard against the possibility of being caught in the ice and being forced to spend the winter in the northern seas. The ship carried also material and supplies for the construction of the buildings of a new police detachment, as well as supplies to replenish the posts already established at Pond Inlet and Craig harbour. Material was also taken for a galvanized iron building to be erected at some convenient place in the north and used as a cache for a certain part of the ship's stores which had hitherto been carried back and forth each year.

When the loading was complete there was on board about 900 tons and it was noted that the ship drew 21.2 feet forward and 22.4 feet aft. The deck load was very heavy and comprised among other things over 200 tons of coal in double sacks each weighing 100 pounds. No apprehension was felt, however, on this account as the ship burned between six and seven tons daily and by taking this from the deck load the latter would be considerably reduced before the ship had passed through Belle Isle strait and became exposed to the heavy seas of the Atlantic. Moreover, the load was not much heavier than on the two previous trips on which no trouble had been experienced.

Leaving Quebec at noon on the 5th of July, Father Point, where the last mails were sent ashore, was reached the next afternoon. The course was now laid past Point des Montes, and thence by way of the North channel to Belle Isle strait. Beautiful weather prevailed and the strait was reached at noon on July 10. When half way through the strait the first iceberg was seen.

Belle Isle was passed early on the morning of July 11 and the *Arctic* was then headed due north for Cumberland gulf. A heavy swell from the Atlantic combined with a strong west wind caused her to pitch and roll very heavily. Next day the wind shifted to the east and increased in violence, and it began to rain. The ship was kept on her course, but heavy seas began to break over the rail. The deck load of coal absorbed a great deal of water and also prevented the escape of water through the scuppers. To a ship so heavily laden as the *Arctic* and already so low in the water this proved a serious matter. The climax was reached at 9.30 p.m. on July 12, when an enormous sea broke over the rail and threw the ship so far over to port that the deck load was shifted. At the same time an immense volume of water poured down into the boiler room and the water rose to a depth of five feet and put out the fires. All hands were called

on deck as quickly as possible, the ship's head was swung around into the wind so that she could withstand the seas better, and sails were furled. The wireless operator tried to send out an S.O.S. message, but it was too late—the power was off. Immediate arrangements were made to deal with the situation below deck. A hand-pump was rigged up in the forward hold and a bucket brigade operated from the engine room. After several hours of strenuous work, when it was seen that the storm increased in violence, that the water in the hold continued to rise, and that the ship was slowly settling, it was decided to jettison the deck load. All who could be spared from the buckets and the pump were put at this work, and when daylight came on the morning of July 13 the whole deck load of coal and numerous other things had been cast overboard, and the ship, which had righted herself, now rode the waves easily. Another pump was rigged in the engine room and the bucket line was discontinued, and shortly afterwards it was reported that the water was lowering in the hold. This was good news, for it meant that in spite of the severe strain to which the ship had been subjected there was no serious leak.

By the 14th the water had been so far reduced in the boiler room that fires were lighted under one boiler. Soon there was steam which gave power for lights and wireless and a message to Ottawa in code was broadcasted that night. [This message was picked up by an amateur in Toronto.] The work of cleaning up the engine room went on vigorously but it was not until the evening of July 17 that the engines were started. They had been out of commission for five days.

On July 19 the east entrance to Hudson strait was passed. Next day, when off Resolution island and Frobisher bay, pack ice was encountered but it was scattered and gave little trouble except when it was necessary to ram a piece that blocked the way. Icebergs were also very numerous, as many as eighty-seven being visible at one time.

During the spring and early summer, when the ice usually breaks up, if there is a prevalence of easterly or southeasterly winds the ice of Cumberland gulf is unable to get out, and the great fields that move down the coast of Baffin Island drift into the wide mouth of the gulf and are held there, blocking it up completely. Such a condition is not uncommon. It occurred no later than 1922 when the Hudson's Bay Company's boat was prevented from paying the yearly visit to the post at Netchilik (now called Pangnirtung). Under these circumstances there was much speculation as to the conditions that would be found in the gulf and how far the *Arctic* would get before being stopped by ice. It was a pleasant surprise therefore, when the loose ice near the mouth gave way to clear water and the gulf was found to be practically free of ice. That evening the sun set at 10 o'clock but the short night was only a period of twilight as it was possible to read ordinary print on deck at midnight.

When the *Arctic* left Pangnirtung in the fall of 1923 it had been arranged with Inspector Wilcox of the Royal Canadian Mounted Police who had remained in the North, that he should come to Blacklead island early in July and there await the arrival of the ship. It had been further decided that if the ice held solid in Cumberland gulf and the ship were in consequence unable to get up as far as Blacklead, then signals would be made and the Inspector would come out to the ship over the ice.

Blacklead island came in sight about midnight and figures could be dimly seen moving about. Soon a boat put off and Inspector Wilcox came aboard early in the morning of July 22. He had come to Blacklead in May before the break-up of the ice and had since been awaiting the arrival of the ship.

Until a few years ago Blacklead was the seat of the most important whaling station in the North, and had a population of several hundreds of Eskimos

who supplied much of the labour needed in the whaling business. The whaling industry however has now been discontinued. At present the native population of Blackhead is less than one hundred, the others having moved to other places on the gulf which offer better chances of hunting and fishing. There still remain some frame buildings formerly used by the whalers, and numbers of iron tanks in which the oil was rendered down, lie scattered about. There is also a small church and mission house built by the late Rev. E. J. Peck, of the Church of England mission, who ministered to the natives of Cumberland gulf and vicinity for twelve years.

In planning the trip it had been assumed that the ship would not be able to get in to Pangnirtung on the way north on account of ice, and, consequently it was arranged that Mr. Soper should stay on board until the ship called there on her way home. Conditions proved more favourable than had been anticipated; Pangnirtung could now be reached in one day from Blacklead, whereas, if the visit were postponed until the return trip in September, it would necessitate a journey in and out of at least three hundred miles. It was the latter consideration and the chance of saving many tons of coal that led to a change in the plans and the course was accordingly laid for Pangnirtung which lies almost due north from Blacklead island.



ROYAL CANADIAN MOUNTED POLICE POST.  
This picture is of the barracks at Pangnirtung, built in 1923.

Late in the evening of July 22 the anchor was dropped in Pangnirtung fiord opposite the post and a party went ashore in the launch. A line of huge rocks marks the shore at low tide and makes navigation dangerous at high tide. Most of the men of the settlement were away at this time, being about eighty miles farther up the gulf, where the Hudson's Bay Company have a sub-post, engaged in securing the skins and blubber of a phenomenal catch of white whales which had been made a few weeks before.

Soon after landing, Dr. Livingstone began a medical examination of the natives which was not concluded until seven o'clock next morning. About forty were examined. One case of scurvy was found and one woman was brought aboard for surgical treatment.

Mr. J. D. Soper went ashore, taking with him a boat equipped with a motor, a supply of gasolene, and supplies of food sufficient for one year. He will collect specimens of plant and animal life around the gulf and will make a trip to the large lakes Netsalik and Amadjuak, in the southern part of Baffin island, which are said to be the nesting places of the blue goose.

It was learned that Major L. T. Burwash, who came north with the expedition in 1923 and remained for the winter making investigations in the interests

of the North West Territories and Yukon Branch, Department of the Interior, had left Pangnirtung in April intending to make a trip to the west and south and to reach Blacklead island before the arrival of the *Arctic* there in July.\*

In the evening all the white men at the post and several boatloads of natives came aboard for the annual picture show, which was given on deck under the shelter of a large tarpaulin provided for the purpose. A treat for the natives of tea and biscuits followed.

About midday of July 23 the anchor was lifted and a start was made for Godhavn, Greenland. The total number on board was reduced by one, as Mr. Soper and two police remained at Pangnirtung, and two other police who had been at Pangnirtung for a year came with the ship.

In the afternoon of July 24 when off cape Mercy a considerable quantity of ice was encountered and many walrus were noticed on the floes. Thicker ice was noticed as the day wore on and about 9 p.m. ice anchors were put out and the ship was tied up for the night. Advantage was taken of this stop to put a hose over the side and replenish the water tanks from pools of fresh water on the ice pans. On July 25 progress was slow until the afternoon when the ship got clear of the pack and, helped by a light breeze from the southeast, proceeded on her course.

Navigation northward along the east coast of Baffin island is rendered very difficult, especially in the early months of summer, by the vast stream of ice which is borne southward by the Labrador current from the shores of Baffin bay and the adjoining waters, and from the earliest times it has been the practice of vessels heading into these waters to follow a course close to the Greenland coast. In this way they avoid the ice and at the same time have the advantage of the East Greenland current which sweeps around cape Farewell and follows the west coast of Greenland northerly to about the latitude of the



A GARDEN AT GODHAVN, GREENLAND.

Godhavn is 200 miles within the Arctic circle. Lettuce, radishes and parsley do well here under glass.

Arctic Circle. Accordingly when the ship got clear of the ice on July 25 the course was laid eastward. "Greenland's icy mountains" came into view on July 27 and Godhavn was reached at midday, July 31, after some days of very rough weather.

For purposes of administration Greenland is divided into two Inspectorates, North Greenland and South Greenland, each of which embraces some twenty-five or thirty native settlements scattered along the coast. Godhavn is situated

\* Later it was found that owing to an unusually early break-up he had been unable to reach Blacklead as intended. He had remained at one of the settlements on Hudson strait and came out in the fall of 1924 on the Hudson Bay Company's steamer *Nascopie*.

on a fine, well-sheltered harbour on the south shore of Disko island in latitude  $69^{\circ} 15' N$ . It is the principal settlement in North Greenland and is the official home of the Inspector, Mr. Harold Lindow.

The Danish official in charge of the post and settlement at Godhavn came on board soon after the anchor had been dropped and when the Officer in Charge had given him letters from the Danish Consul at Montreal and Dr. Livingstone had satisfied him as to the health of all on board, permission was given to go ashore. On landing the party were met by Mr. Lindow, who received the members very cordially.

The Greenlanders have nearly all been converted to Christianity and at Godhavn one of the most prominent buildings is the Lutheran church. There is also a school with a native teacher and a printing office equipped with a rotary hand press and managed by native workers. Here are printed all the forms needed in the administration of the North Greenland Inspectorate, also a monthly paper or magazine called "Avangnamiak" (The People of North Greenland) with an issue of 2,000 copies. It is in the Eskimo language and has numerous illustrations. The isolation of this northern settlement is soon to be broken, for at the time of the visit a Danish engineer and his assistants were engaged in erecting a wireless station at a point just outside the town.



GROUP OF ESKIMOS IN NORTH GREENLAND.

These Eskimos belong to a small tribe known as Arctic Highlanders and live at the head of Etah harbour. They are a sturdy, self-reliant race practically untouched by civilization.

The weather was particularly fine and much like that of early spring in more southern latitudes, the air being wonderfully clear and bracing, and the sun bright but not unpleasantly warm, while boats and native kayaks passed to and fro over the sparkling waters of the harbour. The modern character of the principal buildings, the bright-coloured dresses of the natives, the abundance of flowers and the general air of bustle that pervaded the place, made it hard to realize that Godhavn lies 200 miles within the Arctic Circle. Only the snow-capped hills and the ever-present icebergs stranded in Disko bay served to preserve the Arctic character of the scene.

Inspector and Mrs. Lindow entertained the Officer in Charge of the expedition, Captain Bernier, and Inspector Wilcox at dinner. In the evening a picture show was given on board the *Arctic* at which all the Danish people of the settlement were present. After a few words of welcome by the Officer in Charge to which Inspector Lindow replied for the Danes, the official pictures of the 1923 Arctic expedition were shown. These were followed by refreshments, songs, and dancing, and it was past "midnight" (but still broad daylight) when "God Save the King" was sung and the guests went ashore.

Probably the most interesting sight at Godhavn, from an historical point of view at least, is the hull of Captain L. M'Clintock's ship, the *Fox*, which has lain for many years on the shore just within the entrance to the harbour. It was in this small vessel of 177 tons that the intrepid sailor in the years 1857, '58 and '59 braved the dangers of Arctic navigation and after almost miraculous escapes solved the mystery surrounding the fate of Sir John Franklin and his men. His gallant little vessel, having grown old in the Greenland trade, was finally run ashore at Godhavn. Everything of value has been cut and hacked away until now only her boilers and a few half-rotten timbers are visible at low tide. It is said that the stern timbers bearing the name *Fox* were cut out some years ago and are now in the British Museum.

Close-up pictures were taken of the ship and some copper and iron bolts, a clevis and some threaded treenails of lignum vitae with which her outer planks were secured, were wrenched out and are now in the museum of the North West Territories and Yukon Branch at Ottawa.

The forenoon of August 1 was spent in taking on board 24,000 kilos (about 26 tons) of local coal, also a team of fourteen dogs and a quantity of dog-feed consisting of dried fish of which the dogs are very fond, permission to make these purchases having first been obtained from the local officials. The Greenland unit of money is the Krone which is worth in Canadian money eighteen cents. The price of a dog was 30 krones. At midday all was complete and the anchor having been raised the *Arctic* steamed out of the harbour and proceeded on her way to Pond Inlet.

The crossing of Melville bay and the waters of Baffin bay immediately to the south of it, has always been considered the most difficult and dangerous part of an Arctic voyage, and the supreme test of an Arctic pilot. The numerous icebergs from glaciers on the Greenland coast being carried westward and southward and being joined to the heavy ice from Smith sound and floe ice from Lancaster and Jones sounds, there is formed near the middle of Baffin bay a vast mass, in some seasons hundreds of miles in extent, which is carried slowly southward by the Labrador current. This is known as the "Middle Pack."

In the early days the sailing vessels of the whalers were frequently caught in this "Middle Pack" and either crushed or carried so far south that the whole season was lost. In more recent times the *Vega* was crushed and sunk in the summer of 1903, and in the same year the *Balaena* was held for eighty days in the ice. In 1904 the *Eclipse* took thirty days and the *Diana* thirty-five days to cross Melville bay. On the other hand, the *Neptune* in 1904 crossed Melville bay in twenty hours and in 1907 the *Roosevelt* crossed in twenty-seven hours.

Captain Bernier decided that the main body of the pack had gone south and that it might be possible to slip through open water before another discharge of ice had accumulated. Consequently, on August 3 the course was changed and the ship headed away from the Greenland coast which was soon lost to view. Next day the noon position was Lat.  $73^{\circ} 26' N.$  and from here a course slightly south of west was followed to Pond Inlet. Numerous icebergs were seen and on August 4 considerable pack ice was encountered but this was rotten and scattered and offered little resistance. On August 4 at 4 p.m. the high hills of Bylot island were visible at twenty miles distance. Aided by a strong breeze astern the *Arctic* made excellent time and passing through Pond inlet came to anchor opposite the post at midnight.

The work of landing supplies was begun almost at once and while this was going on a party went in the launch to the mouth of Salmon river, about two miles to the southwest, and secured several hundred pounds of fresh salmon. These ran in size from two or three pounds up to eight or ten pounds and were of excellent quality. It was learned from Sergeant Joy, in charge of Pond Inlet detachment since 1922, that an epidemic had ravaged the settlement during

the spring months. The police had been unremitting in their attendance on the natives and had given such remedies as were available. The symptoms were similar to those of influenza. Thirteen of the natives had died and the appearance of many others showed that they had not yet fully recovered from their illness. One man had been left with a running sore on his finger. Dr. Livingstone decided that amputation was necessary and accordingly the man was brought aboard and the operation performed in the saloon of the *Arctic* which was temporarily transformed into an operating room.

At present Pond Inlet is the most northerly settlement of Eskimos in the islands, but there was a time when they were quite numerous in the islands to the north as is evidenced by the remains of old igloos found in many places on the shores of Devon and Ellesmere islands. The Baffin Island Eskimos still make trips as far north as Ellesmere island to get musk oxen. During the winter of 1923-24 Sergeant Joy decided to make a patrol to the north but the ice of Lancaster sound was broken up and in motion and after several unsuccessful attempts he was obliged to give up and return to Pond Inlet.

In the afternoon of August 6 a start was made for Craig Harbour via Pond Inlet. When about half way along the east coast of Bylot island it was noted that the sun did not set but at midnight stood well above the northern horizon. This condition continued for about ten days.

Some delay was caused by heavy fog in Lady Ann strait and Craig Harbour was not reached until the morning of August 9. Here it was learned that the main building of the post had been burned down in February. The fire had originated in a defective smoke-flue and had spread so rapidly that Sergeant Michelson and his two assistants had lost nearly all their effects and had barely escaped with their lives. The temperature at the time was -55° F. Since the fire the police had been living in a small building erected as a blubber-house. During the winter a party from the post had made a patrol westward up Jones sound for more than 100 miles. They had seen a number of musk-oxen and had found a cairn with a message left by Otto Sverdrup, the Norwegian explorer, in 1899.

It was decided to close up the post at Craig Harbour, at least temporarily, and to make every effort to establish a new post at cape Sabine in Smith sound, or in that vicinity. The three members of the police at Craig Harbour accordingly came aboard with eight Eskimos and thirty dogs, and the same evening anchor was weighed and the ship was soon in the waters of Jones sound and heading out through Glacier strait into the North Water, a name given long ago by the whalers to the narrow, northern part of Baffin bay. The shores on both sides are lined with glaciers and consequently icebergs are numerous. There was also plenty of heavy ice in pans and cakes of various sizes among which the *Arctic* passed with an occasional bump.

The weather was fine and bright and the sea like glass. Bird life was particularly abundant, the little auk or dovekie being now seen for the first time. Immense numbers of these, in flocks of ten or twelve, were flying back and forth or resting on the water. As the ship approached some of them would rise and fly away, others would dive and could easily be seen through the clear water. They seemed to propel themselves by means of both feet and wings and usually came to the surface at a distance of fifty or seventy-five yards away from the ship. Eider ducks also were quite numerous.

Cape Alexander on the Greenland coast was passed early on the morning of August 11 and Etah harbour on the east side of Smith sound was reached two hours later. Here two families of Eskimos were found living at the head of the harbour. Smith sound, which at its narrowest part between cape Sabine and the Greenland coast is twenty-six miles wide, was found to be absolutely free of ice. It was soon crossed and by early afternoon the ship was skirting,

the shores of Pim island with the Captain looking for a harbour and a suitable place to establish the new post. The day was fine and clear with a temperature of  $+51^{\circ}$  F. Cape Sabine, Brevoort, and Stalknecht islands, and the whole eastern and southern coasts of Pim island were clearly visible at a distance of only a few miles and it was seen that they did not present any sheltered sites suitable for the establishment of a permanent post.

Continuing westward some loose ice was encountered and it was noted that one pan of perhaps one hundred feet in diameter, which appeared black when all the others were white and glistening, was literally covered with walrus basking in the sun. Pim island is separated from Ellesmere island by Rice strait, which is about one-half mile wide with steep sides rising to a height of 1,000 to 1,500 feet. The strait was entered at 4.35 p.m. and an hour later the anchor was dropped in 12 fathoms in Fram Havn, a small harbour on the east side of Ellesmere island, near the north end of Rice strait where it enters Kane basin. Further progress northward was considered impossible on account of the



CACHE ON RICE STRAIT, ELLESmere ISLAND.

This cache was established in 1924 and is well stored with provisions and fuel and is situated in latitude  $78^{\circ} 46' N.$  and longitude  $74^{\circ} 56' W.$

heavy ice in Kane basin, and after some hours had been spent in exploring it was decided to erect a small building on the slope of the low hill to the south. In the meantime a small party passed north into Kane basin in the launch intending to proceed eastward along the north shore of Pim island. Opposite Cocked Hat island they were obliged to land and several of the party then went on foot about four miles down the coast.

On this trip, Dr. Livingstone picked up a very interesting relic in the shape of a piece of leather to which was attached a monogram in gold with the letters "V.R.I." This was thought on investigation to have been part of a spectacle case which was probably dropped by an officer of the party of Sir George Nares, who visited these regions in 1875 and 1876.

The site chosen for the new post, while undoubtedly the best in the vicinity, was so bleak and exposed and the prospects for hunting were so poor that the Eskimo families who had come north to assist the police could not be induced to stay. Under the circumstances the only thing to do was to erect a building

and store it with supplies. In lieu of actual permanent occupation, the police from Craig Harbour will make a patrol and occupy it for a part of the year, the distance from that post being only 150 miles.

By 4.30 p.m. everything was completed. Then the flag was hoisted with three hearty cheers and the photographer took the official pictures. The post will be known as Kane Basin. It is the most northerly post in Canada, being in latitude  $78^{\circ} 46' N.$  and longitude  $74^{\circ} 56' W.$  It is 674 geographical miles or about 750 English miles from the Pole.

During the building of the post a survey of the site was made by the Officer in Charge of the expedition, the lot being No. 1 of Group 2134, and the monuments were marked accordingly. The sky remained cloudy and overcast during the whole day and no observation for azimuth was possible. Consequently the bearings for the lines are magnetic, the magnetic declination at this point being taken at  $105^{\circ}$  west. This is believed to be the farthest north official land survey in the world.

At 8 p.m. August 12, the anchor was lifted and soon the narrow confines of Rice strait were passed and the course was laid southeast. Much heavy ice was encountered in the North Water.

On the 14th when off the coast of Ellesmere island, a bear was seen swimming near the ship and was shot and hauled aboard. Delicious bear steaks appeared on the menu for some days and the change from a continuous diet of cured or canned meats was very welcome. Late the same evening, cape King Edward VII was passed and soon after the ship entered Craig Harbour for the second time during the season. The launch was lowered and loaded with the effects of Sergeant Michelson and Constable Dersch, who were to remain here for the year. It also carried the Eskimo family of four and their dogs, tents, utensils, etc., with kayaks and komatiks towing in a long train behind. Soon after midnight this farthest outpost of civilization was left behind and the ship was again steaming southward on the way to Dundas harbour which had been suggested by the Commander of the 1923 expedition as a suitable locality for a police post.

Dundas harbour was reached early in the morning of August 17 and good anchorage was found within one-quarter mile of the eastern shore. A site for the storehouse of the new police post was selected on a convenient spot close to the shore and soon all hands were busy landing material for the buildings, supplies of food and coal for the men for two years, etc. For the main building of the post a site was chosen close to the shore of a small bay extending in from Lancaster sound. Back from the shore at a distance of one-third of a mile is a hill or ridge 720 feet high, forming an excellent wind-break from the prevailing north and northeast winds.

A lot had been surveyed on the shore of Dundas harbour in 1923 for the police. It was found, however, that the site selected for the main building of the new post was on the east limit of this lot and accordingly another lot No. 1830-2 was laid off to the east and duly surveyed and posted, solar observations being taken for azimuth and latitude.

A short base was also laid down and a rough triangulation carried to the point at the entrance to the harbour. The Officer in Charge of the expedition also set up the dip circle at the monument marked 1830-1-1 and took a series of observations for declination, dip and total force, which were found to be as follows:—

|                       |              |
|-----------------------|--------------|
| Declination.. . . . . | 108° 26' W.  |
| Dip.. . . . .         | 86° 45'      |
| Total force.. . . . . | .5832 C.G.S. |



VIEW OF DUNDAS HARBOUR LOOKING NORTHWEST.

In the foreground is the storehouse of the Royal Canadian Mounted Police Post in course of erection. The launch may be observed loaded with material and supplies making her way through the ice.



ROYAL CANADIAN MOUNTED POLICE POST, DUNDAS.

The buildings of this post are similar in construction to the others in the North, this particular building being completed and formally opened August 26, 1924,

Following is the weather report for the ten days spent about Dundas harbour:—

| Date 1924    | Temperature |        | Remarks                         |
|--------------|-------------|--------|---------------------------------|
|              | Max.        | Min.   |                                 |
| Aug. 17..... | 54° F.      | 33° F. | Bright sunshine. No wind.       |
| " 18.....    | 52          | 34     | Bright sunshine.                |
| " 19.....    | 56          | 33     | Fog in forenoon, then clearing. |
| " 20.....    | 49          | 32     | Sunshine. Some light clouds.    |
| " 21.....    | 45          | 34     | Sunshine, calm.                 |
| " 22.....    | 45          | 33     | Cloudy, some fog.               |
| " 23.....    | 42          | 34     | Cloudy, calm.                   |
| " 24.....    | 50          | 36     | Sunshine. Some light clouds.    |
| " 25.....    | 50          | 33     | Sunshine, light clouds, calm.   |
| " 26.....    | 50          | 33     | Fog but clearing.               |

On August 26 the buildings of the new post were complete in all except some interior details which it was decided to leave for the police to do at their leisure, and arrangements were made for the formal opening. A spare mast from the launch was erected in front of the main building as a temporary flag pole and the cinematographer chose a place for his camera. When all was ready the flag was run up and saluted, then hearty cheers were given for the new post, "Dundas," and for the three hardy men who were to make it their home for the next year; and the post was declared officially open. Dundas is in Lat. 74° 30' N. Long. 82° 15' W.

In the afternoon the anchor was lifted and the course laid for Pond Inlet via Navy Board inlet.

The morning of August 27 saw the *Arctic* abreast of Wollaston island where large flocks of eider ducks were noticed. The waters and coasts here are said to be a favourite resort of these birds. Continuing southward through Navy Board inlet Canada point was passed in the afternoon and the ship was brought to anchor a few miles to the south of it. A party went ashore on Bylot island in the launch to see a deposit of coal which had been located by Captain Bernier on one of his earlier trips. When the members returned to the ship about 11 p.m. it was found that indications of coal had been seen at several places. The best was a seam about one foot thick at a point some 600 feet above sea level.

At 10 a.m. August 28 the expedition reached Pond Inlet for the second time during the season, after an absence of twenty-two days. In the evening a tarpaulin was spread over the deck and all the natives of the settlement, men, women and children, were brought aboard and treated to biscuits and tea. This was followed by two reels of the 1923 pictures and two comic reels, and then by a dance. Next day, the Officer in Charge set up the dip circle at a station near the Royal Canadian Mounted Police barracks and secured observations for dip and total force which were found to be as follows:—

|                  |              |
|------------------|--------------|
| Dip.....         | 86° 32'      |
| Total force..... | .5784 C.G.S. |

As it was necessary to get into some safe harbour and give the engines a complete overhauling to fit them for the long homeward run to Quebec the *Arctic* proceeded to Albert harbour ten miles east and north from Pond Inlet.

While waiting for the repairs to the engine some of the party accepted the hospitality of the police and remained at the post. On August 30 the Officer in Charge with Dr. Livingstone and Mr. R. S. Finnie made a journey inland. They

reached the range of hills some ten or twelve miles to the south of the post and camped out near three lakes which form the source of Salmon river. On the return they passed close to the coal mine about four miles up Salmon river from which the Hudson's Bay Co. get coal for the use of the post at Pond Inlet. Abundance of ripe blueberries of good size and flavour were found on the hillsides near inland lakes. Numbers of Arctic hares and great white owls were seen but they proved too wild for the marksmen of the party to get near enough for a shot. Later on at Albert harbour two hares were shot, the largest of which weighed over fourteen pounds. On the plain east of Salmon river a large flock of Canada geese were noticed.

With the assistance of six Eskimos from Pond Inlet some 75 or 100 tons of stone for ballast were taken on board at Albert harbour, also 4,000 gallons of water from a fine clear stream flowing into the harbour from the south. For two days' work each native was given a large knife, a shirt, a jack-knife, and the choice of a bunch of beads or a mouth organ. Five out of the six chose a mouth organ. In addition each received a pound of tea and a pound of biscuits.

During this time Dr. Livingstone carried out the medical examination of the natives. He found the settlement at Pond Inlet to consist of nineteen males and nineteen females.

The overhauling of the engines being completed on September 3 the same day at midnight a start was made and the course for the next two days was southeastward a few miles off the coast. The shores of this part of Baffin island are very rugged with snow-capped mountains visible at some distance inland. A few glaciers move down to the sea but most of them end at some distance inland. This is in marked contrast to conditions on the eastern shore of Ellesmere island where all the glaciers discharge directly into the sea.

Early in the morning of September 6 the *Arctic* entered the estuary known as Clyde river, having passed between Agnes monument and cape Christian. Four or five miles up this a bay or fiord leads off to the north and at the head of this, five miles from the main inlet, the Hudson's Bay Company established a trading post, "Clyde," in 1923. The post has the usual layout, comprising a store, a dwelling, and a blubber house. The settlement consists of twelve Eskimo families numbering about forty people, but at the time of the visit only three natives were at the post, all the others having gone to the head of Clyde river and thence inland on the annual caribou hunt, a supply of the skins of these animals being necessary for their winter clothing. The agent reported a very poor year for furs but that bears were plentiful. These animals come over the narrow isthmus from Baffin bay and within a week three had been shot near the post. On passing out of Clyde river that afternoon it was noted that cape Hewett at the south of the entrance is low and flat and that this kind of shore extends for some distance southward.

Seventy-five miles south of cape Hewett is cape Kater, marking the northern entrance to Home bay. This was reached on September 7 and a visit was made to the post of the Sabellum Trading Company, which is on the north shore of Home bay about twenty-five miles in from the entrance. The company's agent, Mr. Pitchforth, accompanied by four natives, were picked up in a small sail boat ten miles out from the post. Mr. Pitchforth reported that the company's boat, the *Rosie*, Captain Pearson, had just completed her annual visit to the three posts maintained by the company on Baffin island and had left for Peterhead, Scotland, three days before. The post at Home Bay was found to consist of one small and unpretentious building which serves the double purpose of storehouse and dwelling for the agent. Four tupiks, housing nineteen people, the whole native population, were noticed close by. On the shore along with the usual array of kayaks and sleds was one small oomiak, or women's boat, the only one of the kind seen in the North.

The southward course was continued that same evening (September 7) and on September 10 the wireless operator got in touch with the Hudson's Bay Company's ship *Nascopie*, and Mr. Ralph Parsons, who was aboard her, very kindly offered to supply some coal to the *Arctic* if needed. It was also learned that Major L. T. Burwash, Exploratory Engineer of the Northwest Territories and Yukon Branch, Department of the Interior, was aboard the *Nascopie*, having been picked up at one of their posts on Hudson strait. This information about Major Burwash removed the chief reason for revisiting Pangnirtung. The *Arctic* had enough coal on board to complete the trip, and so continued on her course.

Some very rough weather was encountered on the homeward trip and the ship, being light, rolled more than ever, but by this time the whole party were so inured to the sea-faring life that no one was seasick and the rolling motion was found to be rather enjoyable than otherwise. Father Point was reached on September 22 and the ship was tied up at King's wharf, Quebec, at 6 p.m. September 24, having been out eighty-two days and having covered 6,240 knots.



## CANADIAN ARCTIC EXPEDITION, 1925

GEORGE P. MACKENZIE, *Officer in Charge*

The expedition of 1925 was organized along similar lines to previous expeditions, the C.G.S. *Arctic* being employed to transport personnel and stores. The Officer in Charge was Mr. George P. Mackenzie. Members of the expedition included Dr. L. D. Livingstone; H. E. Steel, secretary to the Officer in Charge; Inspector C. E. Wileox of the Royal Canadian Mounted Police, commanding the Eastern Arctic subdistrict; Staff-Sergeant A. H. Joy and Constables Timbury, Tutin, and Bain; Dr. L. J. Weeks representing the Geological Survey, Department of Mines; R. M. Foster and Richard Finnie, wireless operators; George H. Valiquette, photographer; and the ship's complement of twenty-six officers and crew under Captain J. E. Bernier.

On this voyage also the police had charge of the Eskimo Noo-Kood-lah, who, as stated in the report of the 1923 expedition, was sentenced to a term of imprisonment in Stony Mountain penitentiary and was being returned on parole to his home at Pond Inlet.

On leaving Quebec on July 1 the ship was loaded to capacity. Coal and supplies for the different police detachments and the building material for a proposed new police detachment at Bache peninsula completed the cargo, which filled all available cargo space both in the hold and on deck.

The passage down the river from Quebec was delayed by fog and two minor accidents to machinery, but on the evening of the 6th, the pilot was dropped at Father Point, the pilot boat bringing abroad mail for most of the ship's company, the last to be received until the return to the same port in October.

Fine weather and fair winds were experienced until July 16, when the wind increased to a gale with a heavy sea. Possibly, in some measure because of the heavy deck load, the ship was straining and leaking badly and made heavy weather of it, her main deck being continually awash.

On the morning of the 18th, matters took a somewhat serious turn. The bilge pump, which was being subjected to very heavy duty, went out of order, and before the emergency gasoline pump on deck could be started, the water had risen in the stokehole so that the fires under the boilers were put out. Fortunately it was possible to make the necessary adjustments before the situation became too serious. Once the pump was started, the water was soon lowered, so that in a short time the ship was again under steam.

The first port of call was to be Pangnirtung in Cumberland gulf, and in steering a course for that place the main Baffin sea ice-pack was encountered on the 18th. The ice was heavier and of greater extent than is usually encountered in this locality. The prevailing winds, however, having been westerly, the pack was well opened out on its easterly side, so that without difficulty the ship was worked for a considerable distance into the ice, which, however, soon became so heavy that progress was slower and slower. For six days the struggle to get through to Pangnirtung was continued. No doubt the *Arctic* could have won through in time, but the delay would have been fatal to the carrying out of the summer's program. The order to retreat was, therefore, given on the 24th, but it was not until fourteen days later than the pack was cleared.

Clearing the ice pack on the 6th August, the ship arrived at picturesque Godhavn, Disko island, North Greenland, on the 10th, having, in the meantime, successfully weathered another gale. Although anchor was dropped in the har-

bour of Goodhavn at four o'clock in the morning, the ship's arrival was observed, and in a short time Herr Philip Rosendahl, Governor of North Greenland; Herr Malnquist, District Governor; and H. H. Moller, technical engineer in charge of the radio station at Godhavn, came on board. The ship had a clean bill of health, and her papers were found to be in order, but because of an epidemic of whooping-cough ravaging the settlement, it was deemed inadvisable by the authorities for the members of the expedition to mingle with the native population. During the stay in Godhavn, Dr. Livingstone visited all the sick and gave medical assistance and advice, which was greatly appreciated, there being no doctor in the settlement. Every possible kindness and courtesy was extended to the members of the expedition by the Danish officials at Godhavn. The Officer in Charge accepted an invitation to dine with the Governor and Mrs. Rosendahl; and in the evening all the Danes of the settlement and the native Parliament, then in session, were entertained on the *Arctic* with moving pictures of the 1924 expedition, and with refreshments. The Parliament passed a resolution expressing thanks for the courtesy and good wishes for the success of the expedition.



"ARCTIC" CAUGHT IN PACK.

This picture is taken off cape Mercy, Baffin island, July, 1925. Advantage is being taken of the enforced delay to fill the tanks with fresh water from the ice pan.

Early in the morning of August 11 the members of the expedition bade these kindly Danes good-bye for another year.

By the time the ship reached Godhavn the Melville bay pack had moved far enough south so that by following the Greenland coast little difficulty was experienced with the ice until in the vicinity of cape York. The ice conditions in this neighbourhood were more difficult than ordinarily. On the morning of the 17th of August, it was necessary to moor the ship to an ice pan while a broken rod in the air pump was being repaired.

The Melville Bay neighbourhood is the birthplace of icebergs, a few of which eventually drift south with the currents and are a hazard to shipping on the North Atlantic trade routes. An encounter with one of these monsters provided the necessary spice to an otherwise somewhat monotonous trip along the Greenland coast. The ship escaped injury, however, and without mishap arrived at Etah at 3 p.m. on August 19, and found anchored in this commodious harbour the steamship *Peary* and the auxiliary schooner *Bowdoin* of the MacMillan Arctic Expedition. During the stay of two days in this port the weather was delightful. Inspector Wilcox here secured two families of natives to assist the police at the proposed new detachment on Bache peninsula, permission to take these natives to Ellesmere having been secured from Governor Rosendahl wher-

at Godhavn. One of the native families secured, "Penn-ah-pah" and his wife, are veteran travellers in the north land. Penn-ah-pah had been with the police on a former occasion and seemed delighted to have the opportunity of going with them again.

At midnight on the 20th of August the *Arctic* left Etah, Greenland, for Fram Haven, Rice strait, Ellesmere island. There was very little ice on the Greenland side of Smith sound, but as she neared the Ellesmere coast heavy field ice was encountered. The ship took heavy punishment from ice in the passage through Rice strait that morning, and it was with feelings of relief that the anchor was dropped in the little harbour of Fram Haven, latitude  $78^{\circ} 46'$  north, longitude  $74^{\circ} 56'$  west—the farthest north of the expedition. A launch was in the water as soon as the anchor was down. The Officer in Charge and Inspector Wilcox were anxious to learn if Corporal Michelson had succeeded in making the patrol from the Craig Harbour detachment. They were pleased to find that the supplies in the storehouse had been drawn upon, and the following record left:—

*Corporal T. R. Michelson, R.C.M.P., Craig Harbour, Ellesmere Island, visited Kane Basin Post on Friday, April 24, 1925.*

*Kane Basin Post, R.C.M.P., April 24, 1925*

This brief memorandum indicated that an exceedingly difficult and dangerous patrol over sea-ice and glaciers had been accomplished.



FRAM HAVN, RICE STRAIT.

This picture shows the "Arctic" at anchor August 22, 1925. Latitude  $78^{\circ} 46' N.$ , longitude  $74^{\circ} 56' W.$

Accompanied by Staff-Sergeant Joy and Dr. Livingstone, the Officer in Charge crossed the huge glacier that extends a long arm down a ravine to within a stone's throw of where the ship was anchored, for the purpose of securing a better view of the ice conditions in Buchanan sea, which it was necessary to cross if the objective, Bache peninsula was to be reached. There was considerable ice in the bay, but sufficient leads showed to give a sporting chance to win through.

On leaving Quebec the coal supply was sufficient to make the round trip if no undue delay occurred, but the coal had been so reduced by the enforced stay in the ice-pack off Cumberland gulf that the chief engineer now reported barely sufficient in the bunkers to make the return voyage. The ship, too, was

leaking so badly that it was feared if she were caught and compelled to winter in the ice, it might be necessary to abandon her; she was making too much water to pump by hand, and there was not coal enough to fire one boiler continuously, which would be necessary if steam pumps were to be kept in commission. The weight of professional opinion was against making the attempt, and therefore the order was reluctantly given to unload at Fram Haven the building material, coal, gasoline and oil for the new detachment. The storehouse here was also restocked with rations, but the bulk of the food supply for the new post was taken south to Dundas where better warehouse facilities existed.

Early in the morning of August 23, the prow of the *Arctic* was turned southward. Some difficulty was experienced with ice in Smith sound, but there was very little delay, and at 7 p.m., August 25, anchor was dropped in Craig harbour, on the south side of Ellesmere. As the ship came to anchor a boat was seen to put off from the shore. In it were Corporal Michelson and Constable Dersch.



DUNDAS HARBOUR LOOKING SOUTHWEST.

This picture was taken from a 720-foot hill and shows the "Arctic" at anchor and also the entrance to the harbour, which is  $1\frac{1}{4}$  miles wide.

All at the post were in the best of health, but because of the delay they had given up hope of the ship arriving this year, and were cheerfully making the best arrangements possible for another winter. Goods can be unladen at this port at high tide only, and as the tide and other conditions were favourable, the work of unloading was started at once. Early on the morning of the 27th all freight was ashore, the last two loads being landed with great difficulty because of ice having drifted with the wind between the ship and the shore. The two native families brought from Etah were left at this post, and the natives who had wintered at Craig harbour were taken to Dundas, there being no natives at that post. Staff-Sergeant Joy was left in charge here, and Corporal Michelson came south on leave.

The next port of call was Dundas, Devon island, where the *Arctic* arrived on the 29th August after a stormy passage. All here were in the best of health and spirits, although they too had given up expectation of seeing the ship before another year. Dundas has a safe, well protected harbour, and as the ship can, with safety, lie quite close to the shore, the freight was handled very expeditiously. The portable warehouse, brought north for erection here, was assembled, and the supplies which had been cached here in 1924 moved into it.

On September 1 the ship left for Pond Inlet, arriving on the 3rd. The supplies for this post were quickly unloaded, and by noon of the 4th the ship

proceeded to Albert harbour, twelve miles down the coast to take rock ballast. Seven natives from Pond Inlet were taken to Albert harbour on the ship to assist in this work.

The members of the expedition were guests of the police at the barracks during the four days it took to load the ballast. The Officer in Charge accompanied Mr. Weeks, the geologist, to make an inspection of the coal areas on the Salmon river about four miles from the post.

At Pond Inlet the Officer in Charge made a careful survey of the settlement of Eskimos at this post. He endeavoured by personal observation and by consultation with officers of the Police and the Hudson's Bay Company to acquire knowledge of their circumstances in order to secure a basis for plans directed toward the improvement of the conditions under which they live. He regards them as relatively wonderful people—sturdy, good-natured and courageous.



ESKIMO HOMES AT POND INLET, SEPTEMBER, 1925.

Inspector Wilcox, who is making this post his headquarters for the year and Constable Timbury were left at Pond Inlet, and Constable Friel, who had spent three years in the North and was coming out on leave was taken south.

The *Arctic* sailed from Albert harbour at noon on September 8, and without incident worthy of note, reached Pangnirtung at 7.30 p.m. on September 18. The ice that had prevented her reaching this port in July, had opened out and moved south so that little difficulty was experienced in working the ship through what was left of the pack. Her arrival at Pangnirtung was anticipated as wireless messages had been exchanged with the Hudson's Bay Company's steamship *Nascopie* a few days previously when she was at Blacklead on her way up the gulf. All were found well at the post. Supplies may only be unloaded here and ballast taken aboard at low tide, so that it was not until the 23rd that the ship was ready to continue her voyage. Mr. J. D. Soper, of the Victoria Memorial Museum, Ottawa, who had spent the winter at Pangnirtung and vicinity, had assembled a number of cases of specimens, which were brought south on the ship, but, as Mr. Soper had not completed his work in that area, he decided to remain another year, and was supplied with provisions from the ship's stores.

When the *Arctic* left Pangnirtung on the 23rd it was the intention, on the way out, to visit the large settlement of natives at Blacklead but on arrival there early in the morning of September 24, it was found that a strong northeast wind

had crowded the ice in on the shore, thus making a landing very difficult. The supply of coal was very low, and it was not thought desirable to wait for a favourable opportunity to land. As soon as Cumberland gulf was left behind, the engines were shut down so that coal might be conserved for the trip up the St. Lawrence. Fair winds and reasonably good weather prevailed until the strait of Belle Isle was reached, but a heavy gale was encountered in the gulf of St. Lawrence, which, however, was weathered without any serious mishap. On the morning of the 8th the pilot was picked up at Father Point, and at 4 a.m. on the 10th the *Arctic* arrived back at King's wharf, Quebec.

The expedition of 1925, when viewed in retrospect, may, it is thought, be considered a very successful one, although it appeared at various times during the trip that the ship was having rather more than her fair share of misfortune. There were some minor accidents to the officers and crew, but when the *Arctic* reached Quebec, all were again in perfect health.

The visit to the Danish settlements in Greenland resulted in a continuation of the friendly understanding established with the Danish officials there on previous expeditions.



ESKIMO FAMILY, DUNDAS, AUGUST, 1925.

Good moving pictures of game animals in the North were secured, as well as pictures illustrating interesting phases of native life. The necessary exchange of police officers at the various detachments in the North was effected, and adequate stores of fuel and supplies delivered to the posts. Meteorological observations were taken regularly from the time the ship left Belle Isle until her return to the same latitude, and accurate records kept. Valuable data regarding game in the archipelago were secured. Emergency relief supplies and medical supplies for the natives were left with the police at the different posts. Radio receiving sets were installed and tested at each police detachment. Arrangements were made for a winter patrol from Craig Harbour to Axel Heiberg island. The doctor consulted with the Officer in Charge of the different police detachments respecting the health of the natives in the area patrolled from the detachments, and gave to all natives requiring it, medical attention, including a major operation on the leg of an Eskimo boy at Pangnirtung. The boy would unquestionably have died had the operation not been performed.

## CANADIAN ARCTIC EXPEDITION, 1926

GEORGE P. MACKENZIE, *Officer in Charge*

It was decided to charter a ship for the 1926 annual expedition to take the place of the C.G.S. *Arctic*, which of late years had proved too small and not sufficiently powerful for the work in hand.

For this occasion the Government chartered the ss. *Beothic* owned by the Jobs Sealfishery Company, Limited, of St. John's, Newfoundland. The *Beothic* is a 2,700-ton, 10-knot steel ship reconstructed last year for the seal-fisheries off Newfoundland, and, as this year's experience proved, is well adapted to northern work. The ship was taken over from the owners at St. John's, Newfoundland, on July 10 and proceeded immediately to North Sydney, Nova Scotia, from which port she sailed on her long voyage to the Arctic five days later. Under the terms of the Charter Party, the owners provided the Master, Captain E. Falk, and the officers and crew, with the exception of Captain L. D. Morin, formerly first officer on the *Arctic*, who accompanied the expedition as pilot on account of his experience and knowledge of northern waters.

In all forty-two persons sailed on the *Beothic*, including Mr. George P. Mackenzie, Officer in Charge of the expedition; Dr. L. D. Livingstone, ship's doctor; Mr. W. Q. Ketchum, secretary to the Officer in Charge; Dr. L. J. Weeks and Dr. M. D. Haycock, of the Geological Survey, Department of Mines; Corporal H. P. Friel and seven constables of the Royal Canadian Mounted Police.

The cargo consisted of 1,570 tons of bunker coal and approximately 300 tons of general cargo.

The Mayor of North Sydney and many distinguished citizens of that town were at the wharf to bid the expedition *bon voyage* when the lines were thrown off at noon on July 15.

Although the *Beothic* was not seriously delayed on that account, an unusual amount of field ice and bergs were encountered in the strait of Belle Isle and off the Labrador coast.) Very fine weather lasted until the first port of call Godhavn, North Greenland, was reached on the 22nd.

The usual courtesies were exchanged at this interesting Danish settlement. The Governor and Mrs. Rosendahl and Dr. M. P. and Mrs. Porsild dined on the ship and practically the entire population were entertained with moving pictures. A visit was paid to the native Parliament, that day in session, and, at the request of the Governor, the Officer in Charge addressed the Parliament through the medium of an interpreter.

The ship sailed for Pond Inlet on the afternoon of the 22nd, ice and weather conditions being favourable along the Greenland coast. The Melville Bay pack, which was about 125 miles wide, was crossed on about the 74th parallel. The crossing was made more than ordinarily difficult by the dense fog prevailing. Negotiating an ice pack with the fog so dense that it is not possible to take an observation, or use the log on account of the ice, and with the compass unreliable as it is in these northern latitudes, presents a problem only possible of solution to navigators of sound judgment and wide experience. When the fog lifted, however, early on the morning of the 25th, Bylot island was in sight, after which no further trouble was encountered until Albert bay was reached. The year's ice above that point had not yet moved out of the inlet but it was pretty well rotted and the ship was able to force her way through, arriving at the post at 2 a.m. on July 26. The sight of an unfamiliar ship steaming steadily towards the post through this ice was a real surprise for both the whites and the natives,

and, not unnaturally, created great excitement. As the whole body of ice from Navyboard inlet and Eclipse sound was hourly expected to crowd its way down into Pond inlet, the supplies for this port were landed with all possible dispatch and under considerable difficulties on account of the moving ice. Here Inspector C. E. Wilcox of the Royal Canadian Mounted Police was taken on board in order that he might make his inspection of northern posts, and the ship left for Dundas at midnight of the 26th. On returning to Pond Inlet later it was learned that she had not gotten away any too soon as the ice moved and jammed within a few hours after her departure. Although delayed in some degree by fog and ice, Dundas was reached at midnight of the 27th. The work of unloading was immediately commenced. The food supplies for the proposed new detachment at Bache peninsula, which it had not been possible to land at their destination the previous year and had been warehoused here, were taken on board.



ESKIMO WOMEN AT POND INLET, BAFFIN ISLAND.

The *Beothic* left Dundas on the evening of the 29th of July and arrived at Craig Harbour at 6 p.m. on the 30th. Moving ice in the vicinity necessitated changing the anchorage several times while the supplies were being unloaded, which was accomplished with considerable difficulty. When at this port, an S.O.S. was received from the American auxiliary schooner *Morrissey*, transmitted through the Danish Government wireless station at Godhavn, advising that the schooner was aground on the Greenland coast fifty miles south of Etah and that the party of twelve was on shore without provisions. The *Morrissey* was commanded by Capt. Robert Bartlett the well known Arctic navigator and carried the Putnam Scientific Expedition, which was under the auspices of the American Museum of Natural History of New York City. The *Beothic* sailed

as soon as possible to their assistance and after a few hours got in direct wireless communication with the *Morrissey* but was advised by Captain Bartlett that he had succeeded in floating his schooner and was not then in need of assistance.

The *Beothic* arrived at Etah, North Greenland, on the morning of August 3 and left the same afternoon for Rice strait. Fog and ice made the crossing to Ellesmere difficult but nevertheless anchor was dropped at Fram Havn on the evening of the same day. The appearance of the ice in Buchanan bay, as seen from Rice strait, was not reassuring for the crossing to Bache peninsula. However, it was decided to load at once the freight left at this port the previous year, something over 100 tons, so as to be ready if ice and weather conditions became favourable. As usual, it was blowing a gale at this port but in the protection of the little harbour the loading was not greatly delayed and was completed on the evening of August 5.

Early on the 6th, the ship left anchorage at Fram Havn and with no little misgivings as to the venture into the uncharted waters of Buchanan bay, the expedition steamed slowly past Cocked Hat island, past cape Rutherford,



CRAIG HARBOUR DETACHMENT, R.C.M. POLICE.

past Alexander Haven where Nares on the same date in 1875, exactly fifty-one years before, anchored his ships the *Alert* and *Discovery*. Although a certain amount of heavy ice from Kane basin had crowded into the bay, the year's ice was still holding back the main body and through this ice along the south shore of the bay the ship made fair progress. A favourable lead gave a chance to cross the bay to Bache peninsula and, as progress was made up the bay, ice conditions improved. Eagerly the shore was scanned with binoculars in an attempt to find a possible harbour with good anchorage and a suitable location for a post. Finally a desirable location was found. Here was a well protected harbour, as yet unnamed, about two miles across from point to point, good anchorage and good landing conditions at all stages of the tide. The ship was anchored in 15 fathoms. On going ashore, as favourable a location was found for a post as any in the north—a dry, and, naturally, well drained building location with a southern exposure, well protected from all winds except from the south, with a stream of good water flowing by.

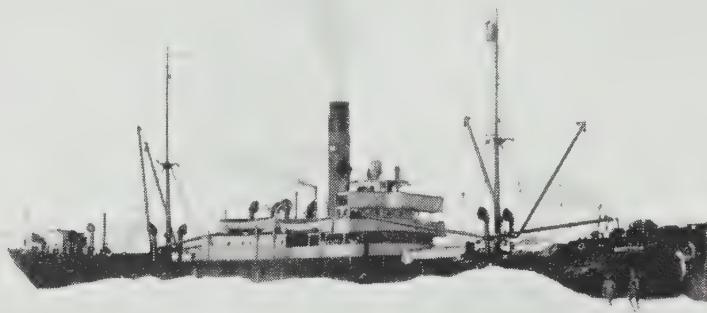
The new post is on the south side of the Bache peninsula, near the entrance to Flagler fiord, in latitude  $79^{\circ} 04' N.$  and longitude  $76^{\circ} 18' W.$ , a most favour-

able location from which to patrol the areas to the north and west. Unloading was commenced at once, the lumber first, so that work could be started on the buildings.

On the 8th, the members of the expedition went up Flagler fiord, a distance of twelve miles, in a police motor boat. A beautiful sheet of water, practically free from ice, was found and an abundance of game—walrus, seal and wild fowl—so necessary to the native in the north.

At 10 a.m. on the 9th, all supplies had been landed, the frame of the buildings erected and partially enclosed, and, as the officer sent to investigate the condition of the ice in Buchanan bay reported an easterly wind and heavy ice moving in, the ship sailed as soon as possible. At this post were left Staff-Sergeant Joy, in charge, and Constables Bain and Garnett and three families of natives. They are splendidly equipped in every way for their year's work at the new detachment.

Immediately the ship was out of the harbour it was apparent that ice conditions had materially changed since her passage up the bay three days



S.S. "BEOTHIC" IN BUCHANAN BAY.

The "Beothic" which carried the Canadian Government Arctic Expedition 1926 is here shown heavily beset by ice on August 10. Bache peninsula in the background.

previously. The wind had been and still was in the east, resulting in the tremendously heavy Arctic ice from Kane basin being crowded into the bay. With great difficulty the ship was worked to within about five miles of Rice strait when, for the time being, progress was completely barred and having ventured so far the line of retreat was cut off. After four hours a lead opened enabling the vessel to get in the lee of a grounded berg, where she was reasonably safe from ice pressure, although she had not totally escaped damage. Investigation disclosed that two cross-beams had buckled under the strain, when pinched, and a number of plates had been bent and rivets gone, causing several leaks. The pumps handled the water, however, without difficulty and temporary repairs were soon made. As opportunity offered, the ship was worked from the lee of one berg to another until she was within two miles of the immediate objective, Rice strait. Here the row of friendly bergs ended and the field ice, which averaged twenty-five feet in thickness and extended as far as the eye could reach, and, possibly, hundreds of miles beyond, was grounded. Between the grounded ice and the shore was a lane of water filled with floes, it is true, but through which a ship might pass if the depth of water was sufficient. The possibility of attempting this passage was not seriously



ESKIMO SUMMER HOME, BACHE PENINSULA



ROYAL CANADIAN MOUNTED POLICE DETACHMENT, BACHE PENINSULA

This picture was taken on August 9, 1926, and shows the barracks under construction. This detachment is in latitude 79° 04' N. and longitude 76° 18' W.

considered at first but after holding this position for thirteen hours with the pressure from the east increasing, it was decided to make the attempt to get through, soundings having first been taken along the inner edge of the grounded ice. Slowly the ship was worked through the pack to the entrance of this narrow strip of water, a leadsman on either bow. Once started into this channel it was realized there could be no turning back as there was not room to swing the ship and as she progressed the ice closed in behind, making it impossible to back out without endangering the propeller. For several ship's lengths there was only three and one-half fathoms, barely sufficient to float the ship, and more than once it was necessary to work an ice floe out of the narrow channel before, with the last ounce of power, it was possible to crowd through. There was abundant evidence at hand that the pressure on the grounded ice was increasing. A detention here for any considerable time would probably have meant disaster to the ship, so that when after four hours she finally emerged into the comparatively open water at the entrance of Rice strait the feeling of relief can be readily understood. Although Cocked Hat island was taking the pressure of the main pack, sufficient ice had crowded into Rice strait to form two jams across the narrow channel which it was necessary to remove by explosives before the ship could be worked through. Finally, however, at midnight of August 11, the last obstruction in the strait was passed and the ship was brought into the comparatively open water of Smith sound.

Calls were made at Etah, North Greenland; Dundas, Arctic bay, Pond Inlet, Clyde river and Pangnirtung, in the order named. Doctor Weeks and Doctor Haycock, of the Geological Survey, Department of Mines, were left at Pangnirtung, from which point they will carry on investigations for their department during the coming year, and Dr. L. D. Livingstone also remained there, where he will render medical assistance to, and investigate the living conditions of, the Eskimos in that area in the interests of the Department of Indian Affairs. The voyage home was uneventful, except for a gale on August 24 when at latitude about  $64^{\circ}$  N. Two boats used for landing cargo were smashed by the seas and went overboard, as did also a number of casks of oil and other equipment lashed on the deck. The ship rolled very heavily and some minor casualties occurred among the members of the expedition.

The *Beothic* arrived at North Sydney early in the morning of August 29. Returning on the ship were seven members of the Royal Canadian Mounted Police: Inspector C. E. Wilcox; Sergeant Wight, who had been in charge at Pangnirtung; Corporal McInnes, who had been in charge at Pond Inlet; Constable Anstead, who had been in charge at Craig Harbour; and Constables Dersch, Makinson, Higgins, and Margetts, from the Craig Harbour, Dundas, Pond Inlet, and Pangnirtung detachments respectively, all coming south on leave after an extended service in the North.

It is thought a record in wireless communication in northern latitudes was established on this voyage. Through one channel or another the ship was in daily communication with headquarters at Ottawa from the time she left North Sydney until her return to that port. The wireless equipment on the boat was furnished by the Canadian Marconi Company and, undoubtedly, the success attained was in very large measure due to the efficiency and untiring efforts of Mr. S. J. Mead, radio engineer and operator with the Canadian Marconi Company, who was in charge of the equipment.

Bache Peninsula  
↓

Kane Basin  
↓

Cocked Hat Island

Pin Island  
↓



Ellesmere Island

Ellesmere Island

PANORAMIC VIEW FROM CAPE RUTHERFORD ON EAST SHORE OF ELLESMORE ISLAND

Picture taken showing Pin Island and Cocked Hat Island to the right, and Bache peninsula to the left. The Canadian Government in 1924 established a cache on Ellesmere Island opposite Pin Island, and in 1926 established a permanent post on Bache peninsula, about 20 miles west from its most easterly projection.



PANORAMIC VIEW OF BACHE PENINSULA DETACHMENT, ROYAL CANADIAN MOUNTED POLICE

This detachment is in latitude  $78^{\circ} 54' N.$ , longitude  $18^{\circ} W.$ , established August, 1926; Buildings under construction with Police, Eskimos and members of expedition in the foreground, frame for a storhouse and bows of provisions to the right and eskimo skin tupicks to the left.









